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X

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A single word omitted from the testimony

*... is a "little thing"
that makes a big difference*

THE successful manufacturer of fine products is essentially a man to whom constant vigilance is a daily watchword. He appreciates the importance of the many little things that give his products quality—little things that might turn success into failure.

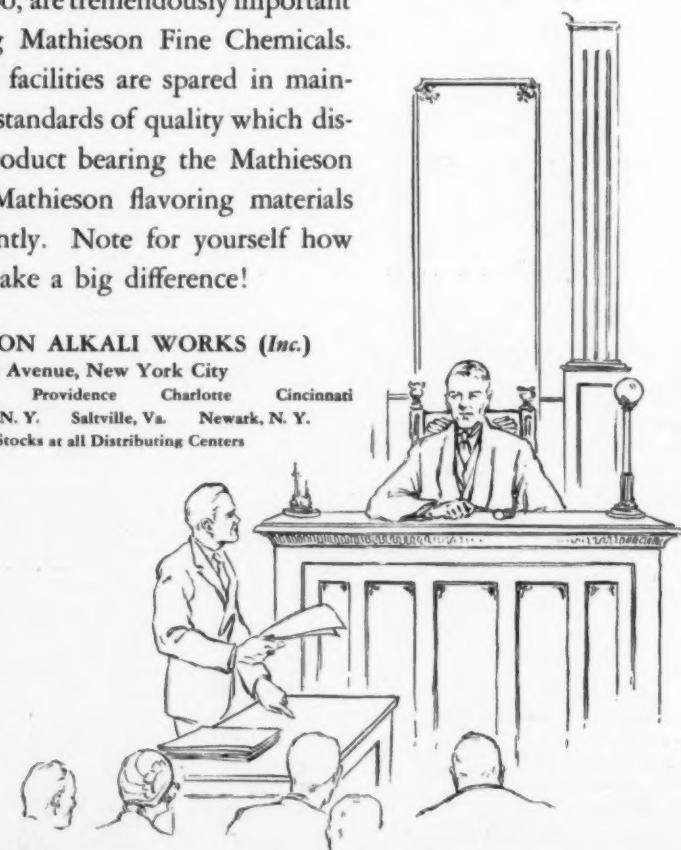
Little things, too, are tremendously important in manufacturing Mathieson Fine Chemicals. Neither skill nor facilities are spared in maintaining the high standards of quality which distinguish every product bearing the Mathieson label. See that Mathieson flavoring materials are used consistently. Note for yourself how "little things" make a big difference!

When important legal cases are tried, the so-called little things are of utmost importance. Frequently a word—perhaps a single comma—unintentionally omitted from a legal document becomes a deciding factor in a case where property valued at millions—or even life—hangs in the balance.

The MATHIESON ALKALI WORKS (Inc.)
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Philadelphia Chicago Providence Charlotte Cincinnati
Works: Niagara Falls, N. Y. Saltville, Va. Newark, N. Y.
Warehouse Stocks at all Distributing Centers



VANILLIN
COUMARIN
BENZOATE OF SODA
BENZOIC ACID
BENZALDEHYDE



MATHIESON CHEMICALS

When you need FOOD COLORS

Let your first thought be

ATLAS

Manufactured by

—KOHNSTAMM—

First Producers of
Certified Colors

Strength

Purity



Brilliance

Uniformity

The Atlas Label is Your
Protection

H. KOHNSTAMM & CO., Inc.

NEW YORK, N. Y.
83-93 Park Place

CHICAGO, ILL.
11-13 Illinois St.



Editorial

ROBERT RANDOLPH, Editor

He Who READS May RUN

P

N a period of change such as the industry is now passing through, it is perhaps necessary to revise the old axiom to read:

"He who *reads* may *run*."

The confectionery factory which still clings to Rule-of-Thumb practices and out-worn methods of manufacture, is slowly but surely being crowded out of the picture.

Today, we are witnessing a great transformation. A whole industry is going to school. Hundreds of confectioners throughout the country are forsaking the time-honored practices of former years and fortifying themselves against the future by learning to study again. Learning new methods of manufacture—gaining the knowledge of materials and men which comes only from the combined experience of not one but many men—learning to apply the fundamentals of the new chemistry to routine operations about the plant.

Have they had to give up their liveli-

hood to do this? Has it been necessary for them to sit cramped behind a desk hours at a time listening to some bespectacled pedagog hold forth on theories only remotely related to their immediate requirements?

THE MANUFACTURING CONFECTIONER has been aptly called "The School of the Confectioner." Certainly, it is the text-book of the confectionery industry. In it are contained the combined wisdom and experience of many men and many industries.

Step by step, month by month, it unfolds in easy, understandable language the fundamentals of the new science of candy-making. If you don't find the answer to your specific problems in its pages, a line to the Technical Editor will be promptly taken care of by a staff of experts.

All but the blind can sign up at this school. It is a school in which—

"he who *reads* may *run*."

Which Are You Selling—Candy, or Old Golds?

To the few who sincerely believed that the way to fight Luckies was to take up the cudgels of Old Golds our January editorial entitled "Into the Hands of the Philistines" must have resembled a bombshell. It was in that article that we pointed out (what we thought would be apparent to any clear-thinking person) that any advantage which might be gained by tying up with the admittedly friendly Old Gold copy, "Eat a chocolate—light an Old Gold—and enjoy both!" would in the long run be far outweighed by the fact that we would have placed ourselves, as an industry, permanently on record as admitting the cigarette smoking habit into partnership with, and on the same plane of healthfulness as, the eating of a wholesome food product such as candy. In fact, it would be quite impossible to interpret our endorsement of Old Gold's claim to

being one of "Two fine and healthful treats" in any other manner.

One of our more gullible contemporaries, having hastily swallowed the bait offered by Lorillard, now comes to the defense of this, his newly-acquired cigarette advertiser, and—either missing the point entirely or deliberately publishing selected (and so *misleading*) excerpts from our editorial—has presumed to attack your editor by name and to accuse him of creating "dissension" in the ranks. The incident is trifling but it goes to show that it is easier to distract attention by an unwarranted attack than to explain one's way out of what must be an exceedingly difficult situation.

That we have performed a notable service to the confectionery industry by warning them against the unforeseen ambush, is overwhelmingly proved by the flood of

THE MANUFACTURING CONFECTIONER

congratulatory messages which continues to arrive at our desk. In addition to these letters, we have had sent to us from all parts of the country, clippings of newspaper, magazine and house-organ articles which show quite clearly that the Lucky Strike campaign has aroused, not only a

bitter resentment against the savage advertising tactics of the American Tobacco Company, but the dormant feeling of antagonism against all kinds of cigarettes and tobacco—especially in so far as they are advocated for women and girls.

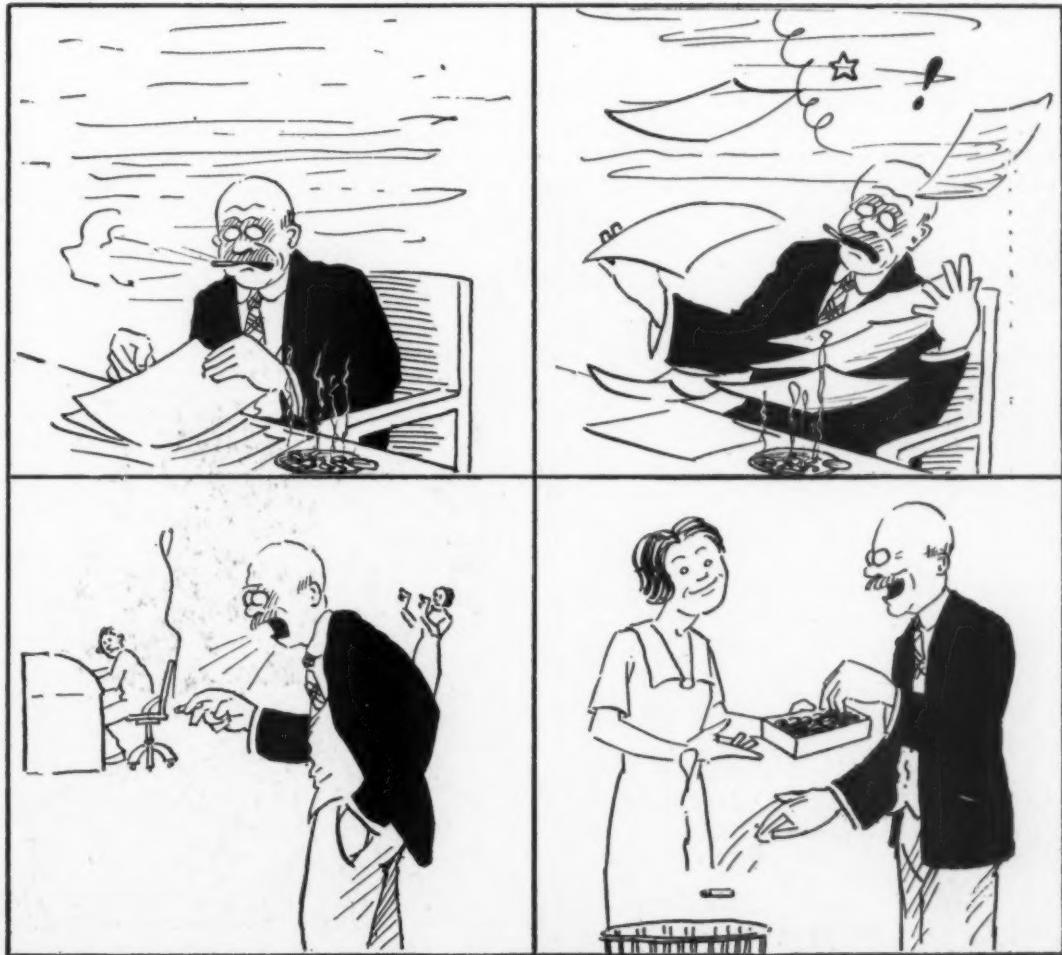
Enter the Anti Family

IN their earliest comment on the Lucky Strike controversy, Printer's Ink weekly alluded to the potential dangers of involving the reformers, or what they referred to as "The Great Anti Family." "The wheel that squeaks the loudest is the one that gets the grease." Our legislative halls are largely dominated by outspoken minorities. The Anti family, ever eager to enforce reform, crammed the Prohibition Amendment down the throats of an

unwilling multitude. The temperance organizations have never looked favorably upon cigarettes and the Lucky Strike ads may be the sparks which kindle the fires of indignation, culminating in cigarette regulation, restriction and finally—prohibition."

The Journal of the American Medical Association having condemned as "essentially vicious" the health claims of *all* cigarettes, are we not guilty of an uncon-

And Then He Took Up Candy (With Apologies to Briggs)



THE MANUFACTURING CONFECTIONER

scious hypocrisy when we espouse the cause of one cigarette manufacturer merely as a means of combatting the unfair advertising tactics of another?

It is true that cigarette smoking will blunt the appetite for candy. It is also true that candy will soothe tired nerves and

lessen the craving for the drug that is in cigarettes. Can any two products be more fundamentally or irrevocably antagonistic to each other? Are we not fools who do not recognize that candy and cigarettes never have had and never will have anything in common? Why catch at straws?

Nature Knows

DR. Ruth F. Wadsworth states candy's case against the slogan "Reach for a Lucky instead of a sweet" in her article "The Gawky Age," appearing in the February 16th issue of Collier's. She asks girls who are voluntarily restricting their diet—which they would rather have, *a plump figure or tuberculosis!* Says Dr. Wadsworth:

"The one rule about adolescent smoking which I believe is based on scientific fact is that when it interferes with appetite it should not be indulged in. As we have noted before, appetite in the young is a God-given attribute to insure growth; anything that interferes with it will interfere with growth to some extent and is therefore undesirable. . . ."

Could anything be a more complete or authoritative rebuke to those who exhort unthinking multitudes of women and young

girls—"when fattening sweets tempt, reach for a Lucky"?

At another point Dr. Wadsworth says:

"If we remember that sugar is the greatest energy food, most digestible and least harmful, and that young people are using most of the other food they take in for purposes of growth, we will understand that the childish craving for sweets is probably a legitimate craving of the body for the wherewithal for activity."

Which gives point to Chas. N. Miller Company's "Mary Jane" ad:

"WHEN I CRAVE A SWEET
I EAT A SWEET
NATURE KNOWS!"

The National Confectioners' Association might do lots worse than to adopt this philosophy as their answering slogan to the Lucky Strike campaign!

A. R. Scheble Heads Midland Confectioners Association

President—A. R. Scheble, Richards-Scheble Candy Company, Hutchinson, Kans.

First Vice-President—Wm. M. Owsley, Ward-Owsley Company, Aberdeen, S. D.

Second Vice-President—George T. Peckham, A. J. Walter Factory, St. Louis, Mo. (not new).

Directors—Carl E. Behr, Paul F. Beich Company, Bloomington, Ill.; E. B. Hutchins, The Bonita Company, Fond du Lac, Wisc.; Walter C. Drury, Schall's, Inc., Clinton, Iowa; L. C. Blunt, W. C. Nevin Candy Co., Denver, Colo.; E. G. Hames, National Candy Company, St. Paul, Minn.; H. H. West, Loose-Wiles Company, Kansas City, Mo.

Western Confectioners Elect Harry L. Brown, President

At the annual convention of the W. C. A., held at Del Monte, California, which adjourned February 2, the following officers were elected:

President: Harry L. Brown of Brown & Haley Co., Tacoma, Washington.

1st Vice Pres.: Miss Ella Saylor, Saylor's Inc., Alameda, Calif.

2nd Vice Pres.: Harry Ostler, Ostler Candy Co., Salt Lake City.

Secy-Treas.: Nate Matzger, Matzger Chocolate Co., San Francisco, Calif.

New President of Sweets Co. of America

Henry A. Fehn has been elected president of The Sweets Company of America, Inc.

THE SATURDAY EVENING POST

January 26, 1935

You can get thin comfortably "on candy". New light on the use of candy by people inclined to overweight... candy is a food...how to use it in the daily diet

ARE YOU ONE of those people who love candy and don't therefore believe they "need" candy in dieting? If so, you have evidently done your best to make the mystery of a reducing regimen.

According to a great medical权威, "In the course of the dieting process, there is a tendency to feel high and light, and a desire for high-sugar foods (candy) other than the ones usually used by people with tendencies to overweight, helping them to get fat."

How to reduce comfortably on Candy

The main trouble with overweighting there is that they make the subject uncomfortable, less active, and produce weakness.

In the Goodwin and Snoddy régime, the main types of candy are not included, although they have been recommended.

The candy barometer comes in handy during dieting, whenever you are hungry, just to measure whether you are eating more than three quarters of a pound a day or not.

Candy is a food...especially for desserts

Candy is a most welcome dessert, especially when served with fruit and nuts. Let's often take the place of the heavier, more indigestible and more fattening desserts.

Candy is good for the teeth, as dentists say. It is good for the throat as an "expectorant", which helps to keep the throat free from mucus. Candy is strong on taste. Candy, with other fruits, makes a delicious dessert.

How to appreciate candy in the diet

The normal weight person has a fondness for candy, but it is not necessarily bad for him. In fact, it is good for him. It is good for him to eat candy, but it is not necessarily good for him to eat candy all the time.

Dr. Thomas M. Hutchinson has written a small book on the subject, "How to Eat Candy", which is available in bookstores. It is a good book, full of good information, and it is well worth reading.

A Book about Candy for you

Dr. Thomas M. Hutchinson has written a small book on the subject, "How to Eat Candy", which is available in bookstores. It is a good book, full of good information, and it is well worth reading.

Please send me Dr. Hutchinson's Book on Candy. Ten cents enclosed.

Dr. Thomas M. Hutchinson

Author of "How to Eat Candy",

Editor of "Candy",

President of the National Confectioners' Association,

111 East 42nd Street, New York, N. Y.

Reprints of these N. C. A. advertisements are available for distribution to jobbers and retailers.

ASK ME!

{ Five minutes of mental exercise and fun. The answers to all questions except Nos. 1, 5 and 8 will be found in the reading matter of the current issue. }

1. What almond looks like a Jordan but tastes like a valencia?
2. What is the function of sweets in the human economy?
3. Why is the butter used in butter-creams unsalted?
4. What is accomplished by fermenting cocoa beans?
5. Why are all apricot kernels bitter?
6. Why do thin people feel the cold more readily than stout people?
7. In what sense may the popularizing of cheap candies be said to reduce juvenile crime?
8. What natural confectionery sugar is known to contain traces of invertase?
9. What causes a "hammy" flavor in certain lots of cocoa beans?
10. What is the only food which is assimilated by the blood within five minutes after it is eaten?

Answers to January Questions



1. What is the cacao's belonging to the superior most frequent cause of coating troubles in confectionery factories.

Ans.: Moisture in the atmosphere, moisture in the centers, moisture in the coating—usually moisture in one form or another.

2. Name the three major varieties of Cacao.

Ans.: Criollo, Forastero and Calabacillo.

3. To which of these varieties do the following chiefly belong? Accra, Arriba, Porto Cabello, Bahia.

Ans.: All except Porta Cabello are "Amelonado," a sub-variety of Forastero which produces the bulk of the world's supply of cocoa. Arriba is classed as an "Ecuador Amelonado," a sub-variety which has not become mixed with other Forastero varieties and therefore remarkably true to strain. Porta Cabello cacao is one of the few

tures. If the syrup is concentrated above this point, crystallization is likely to result. Lower concentrations increase the syrup's susceptibility to fermentation.

7. What are the most favorable conditions for testing chocolate coatings?

Ans.: The chocolate should be in a melted condition, at around 87°-88° F. Color comparisons are made with the coating on flat spatulas exposed under a color light.

8. What is the average yield of dry cacao per tree?

Ans.: One pound.

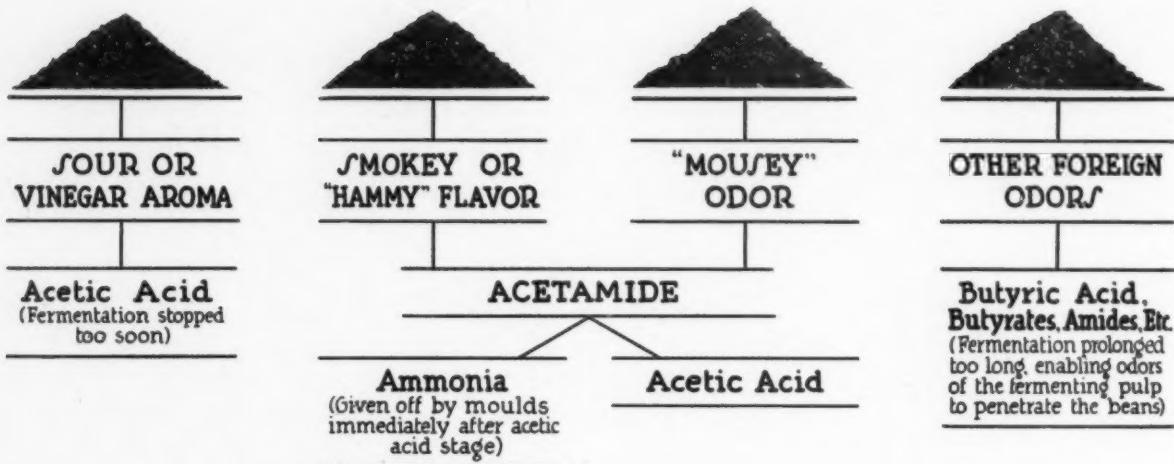
9. What tree is said to produce a liquid similar in taste and appearance to cow's milk?

Ans.: The cow tree of Central America.

10. What are the recommended temperatures for centers, coating and the chocolate dipping room?

Ans.:
Centers, about 80° F.
Coating, about 88° F.
Dipping room, 65° F.





ORIGIN AND IDENTIFICATION of OFF-FLAVORS IN CACAO

(Part IV. "Chats on Chocolate")

By
ROBERT WHYMPER

(Author of "Cocoa and Chocolate", and International Chocolate Authority)

TAKEN over a large acreage of, say, 10,000 acres with cacao trees planted 16 feet by 16 feet, it is not uncommon to obtain a yield of only one pound of dry cacao beans per tree per annum. Individual trees, and specially selected or "manicured" plantations, may yield as high an average as ten pounds per tree, and the maximum recorded that I have been able to find is thirty-three pounds. It will be realized then that a cacao crop is an expensive one to grow, to take care of, and to handle. Moreover, as mentioned previously, the better cacaos are usually the smaller yielders, and the most satisfactory crops result only from trees that have been carefully pruned and on plantations properly drained.

Cacao pods are gathered throughout the year, but there are always two main harvests which one may generally describe as the Spring and Autumn crops. With comparatively dense foliage and comparatively few fruit pods on the trees, picking and gathering is a serious

proposition where tropical labor, notoriously indolent and careless, and now scarce and high in price owing to many restrictions on col-



Robert Whympner

ored immigrants in the white tropics, has to be employed. Picking must be supervised not only to keep the labor up to scratch, but to insure that only ripe pods are gathered, otherwise the finished product suffers. Unripe cacao is inclined to give small flat beans of

great harshness, bitterness, and astringency, whilst overripe pods result in germinated beans which suffer in aroma thereby, and, when fermented and dried, leave a small opening in the germ end of the shell or cuticle in which the cacao moth lays its eggs, and in which moulds are inclined to grow. Further, underripe cacao beans ferment slowly and overripe beans rapidly, so that if both of these imperfect specimens are present among properly ripe beans, the finished average sample is of ununiform quality.

Pulp-Fermentation, Key to Aroma

After the pods have been picked, the beans are removed with amazing dexterity by practiced hands. Machines for removing the beans from the pods are few and far between, for it must not be forgotten that on outlying plantations, fuel and power are usually scarce. Very much of the quality of the finished cacao depends upon how speedily the beans after removal from the pods can be conveyed to the fermenting bins, usually some miles

from the different depodding stations, since the pulp surrounding the beans is of a sugary nature and readily seeps away, and it is upon the successful fermentation of this pulp that the mildness and aroma of cacao depend. This fact may require some explanation since it may be contended that sun-dried cacao processed without any pulp-fermentation may be highly aromatic and perfectly mild, in apparent contradiction to my last statement.

It is now unanimously admitted that the first thing essential in proper curing of cacao is to kill the life of the germ, by which means germination is prevented and the necessary enzymes, of which we shall hear more later, are released. Admittedly this can be done in a hundred ways, but particularly easily by applied artificial heat or cold above and below certain temperatures. From very early times it has been known that cacao beans, fresh from the pod, ferment and generate heat when left piled together. If the cacao is turned every 12-20 hours, the temperature throughout the mass reaches a point where life of the seed is destroyed,

Mr. Whymper's Series to Date:

1. Use Less Accra (November, 1928)
2. Chocolate "au naturel" (December, 1928)
3. Buy Cacaos by Brand (January, 1929)
4. The Origin and Identification of Off-flavors in Cacao. (Current Issue)

For the benefit of those who have missed the previous articles of Mr. Whymper's series, a limited number of copies of the issues in which they appeared are still available.

but is kept below that at which the enzymes would be developed. While of course, enzymes were not recognized in the fourteenth century and earlier, it was known then that the best quality of cacao resulted from

turning the beans occasionally during fermenting.

In the early days, too, drying was invariably carried out in the sun, when, even under these conditions, the greatest heat of the day was avoided. A few hours' exposure to a temperature of 48° C. (118° F.) and about 24 hours at 45° C. (113° F.) are sufficient to kill the germ, and, provided the temperature does not go over 60° C. (140° F.) the activity of the enzymes is not necessarily impaired. The best temperature to secure both death of the germs and encouragement of the enzymic activity undoubtedly lies between 40°-50° C. (104°-122° F.). This is, in fact, the range of temperature usually noticed during normal cacao fermentation and also in correct sun-drying; hence, so far as temperatures are concerned, sun-drying might be expected to give as good results as fermentation. But the time factor, the moisture conditions and acidity of the outside medium of the cacao under treatment are different, and it is in these directions that the fermentation process has to be controlled.

If sun-drying without previous



(Photo, courtesy United Fruit Co.)

Breaking Cacao Pods

OFF-FLAVORS IN CACAO

fermentation is practiced, the best results are obtained by drying reasonably slowly over a period of 4-6 days in such a manner that moulds do not develop. The beans after each day's exposure in the sun are heaped up over-night when it may be said that some fermentation does take place—at any rate the conditions are such that enzymic activity is apparent during that heaping period. In countries where the sun can not be relied upon, such as in many parts of Central America where the rainfall is high, artificial drying has to be practiced. The beans are there subjected to fermentation, turned daily in order to aerate them, and to even out the temperature, and conveyed to dryers where heat and a current of air are artificially applied. And it is upon this degree of fermentation and the subsequent temperature of drying that the quality of the finished cacao depends.

Off-Odors Traceable to Source

Alcoholic fermentation of the sugary pulp is the first step, fol-

lowed more or less quickly according to the moistness and temperature of the beans, by acetic fermentation or growth of the acetic acid bacteria. At the acetic stage, close watching of the fermenting mass has to be exercised, for, if taken too early, the beans will smell of vinegar at the finish, and if taken too late, other objectionable flavors such as butyric acid, butyrate, amides, etc., are likely to enter the beans which have become very permeable during fermentation.

It does not seem to have been previously recorded that ammonia is given off by moulds immediately following the acetic acid stage, and that acetamide, a substance readily derived from ammonium acetate that would occur from the combination of ammonia and acetic acid, and of a most objectionable "mousey" odor, quite frequently is found. Acetamide, among other odoriferous bodies, is responsible for the

smokey or hammy flavor so often recorded by cocoa brokers.

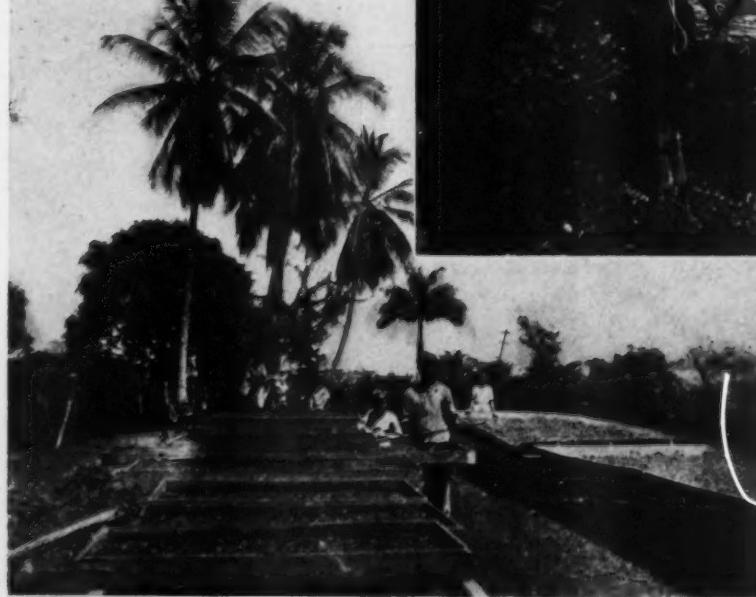
To catch the cacao when it is most neutral in acidity, least contaminated with foreign flavors, most mild from the breaking down of tannins and other astringents, and most aromatic from the proper development of the aroma latent in the original cacao is the difficult task of the cacao producers who, until recently, have been in the hands and at the mercy of Nature. Small wonder then that the best producers are, with the aid of science, endeavoring to standardize their processes, control their variables and turn out cacao of uniform good quality. The only trouble, as we have mentioned before, is that the best varieties of cacao are being grown less and less, while it is to the producers' credit that scientific processes are being more and more adopted to secure the best possible results from the cacao grown.



Right: Loading cacao on pack mules.

Boxes filled with wet beans are placed in an iron frame-work which is fitted to the mule's back.

(Photo, courtesy United Fruit Co.)



Left: Private planter sun-drying cacao.

(Photo, courtesy United Fruit Co.)





Unpublished Testimonials

"A wealthy tobacco company is understood to be paying large sums for cigarette testimonials." — News Item.

DEAR MR. PILL:

My baby had influenza and was coughing badly. Quick as a flash I plugged his throat with a Plucky Spike, and would you believe it, he hasn't coughed since.

My undertaker congratulated me and said *I did the only thing.*

Also roasted,
LOTTA SNEEZ.

DEAR MR. DILL:

I want to tell you how much we appreciate the great work which you are doing for humanity. Our domestic life has been troubled with insects. After reading one of your advertisements my husband and I decided to experiment. That night when the feast was at its height, we lighted a couple of your Goofy Mikes and began puffing furiously. In half an hour it was all over.

After the Fire Department left, we collected insurance and moved to Canarsie. *We have never been troubled with the little fellows since.* I thought your other customers might be glad to know this.

Yours spoofingly,
GERTIE GARGEL.

DEAR MR. KILL:

Why go to the Social register for testimonials? Them babies is amateurs. If you want blurbs that will knock 'em dead, get them from the underworld!

During the calendar year 1928, clients collected \$367,822.52 damages on our testimony. You can do likewise. Puffs include everything from smokeless powder to patented forty-fives.

Cigarettes, heroin and caskets, a specialty. *Give us a break, too.*

THE MUSKETEERS.

DEAR MR. SILL:

My room-mate weighed 287 $\frac{3}{4}$ pounds net before she took up Cluckies. She be-

gan by reaching for a Clucky in place of breakfast. At the end of the first month she was able to reach supper on a guaranteed empty stomach. It was a great success. She lost 212 $\frac{1}{4}$ pounds in three months. She had planned to reach bedtime without any meals whatever and *I feel sure she would have made it if she hadn't died of heart failure.*

Pass me the sweets,

MABEL.

One From the Testimonial Agency

Dear Mr. Gill:

In view of the unprecedented demand for testimonials which your campaign has started, we are compelled to advance our rates as follows:

986 screen stars (8th magnitude—all new)	\$12.50 for lot, postpaid
Doug and Mary.....(each)	\$1500.00 (both) \$3975.00
76,932 public celebrities, once used.....(*)	
The Four Hundred.....From 1 carton up	
50 near famous and infamous....No charge	
8300 golf pros, tennis champions and other	
athletes, not including Farrell.....	
..\$75.00 each, plus expenses of photographing	
10,000 non-smokers	\$10.00 each
37 popular heroes. Special rates on application	
465 ranking officers of the U. S. Army	
(retired)	
...\$300.00 each, plus guaranteed notoriety	
75 former German war officers (complete	
with titles and decorations).....	
Special offer, .98 each, or equivalent in	
German marks	
"Lindy"—(Will submit bid of \$12,300,000.00,	
provided you take out life insurance.)	

Hoping to be favored with a continuance of your valuable patronage, we are

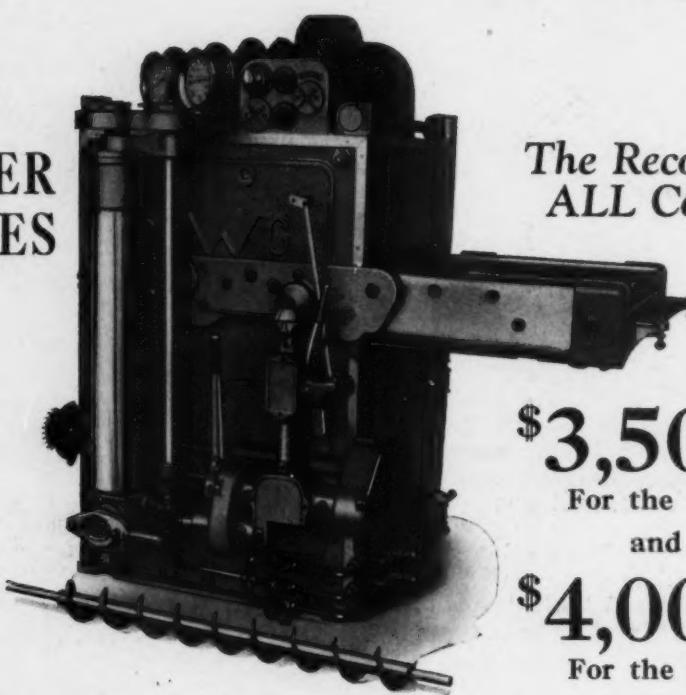
Yours for an Honest Dollar,
HOODWINKER ADVERTISING TESTIMONIAL
AGENCY.

*Any reasonable cash offer considered.



THE GREER STANDARD COATER

**NEW
LOWER
PRICES**



*The Recognized Leader of
ALL Coating Machines*

**The following
can be procured
either Coater**

\$3,500
For the 24" Size
and
\$4,000
For the 32" Size

GREER Improved
Greer Improved
Greer Improved
Greer Steel Belt
or Greer Automatic
Machine

Due to the great increase in the number of sales during the past year, the J. W. GREER COMPANY has been enabled to reduce the cost of production to such an extent that you can now purchase THE BEST COATING MACHINE on the market for considerably less than ever before:

Why continue to use antique 16" coaters or inefficient ones, or hand-dip pieces when you can produce such wonderful goods at much less cost on a GREER STANDARD COATER?

Do you know that many manufacturers who doubted the ability of any machine to properly coat their particular pieces are today enjoying greater profits because they were willing to give the GREER STANDARD COATER a trial?

No reasonable expense has been spared in the design and construction of the GREER STANDARD COATER. Following are a few outstanding features.

- 1—Direct-Motor-Driven, Positive Pressure, Silent Fan or Blower.
(No troublesome belts, bearings or noise.)
- 2—GREER Combination Reeves Variable Speed Drive gives ANY speed from 4 feet to 16 feet per minute.
- 3—Shatter-proof Plate Glass Windows.
- 4—High grade, Accurate Thermometers.
- 5—Full size Tank designed so that there are no shelves or recesses where chocolate may lodge and become stale.
- 6—Special Extension Heater which helps eliminate "tails" and "feet."

J. W. GREER

Manufacturing
Machinery

119-137 Windsor St.



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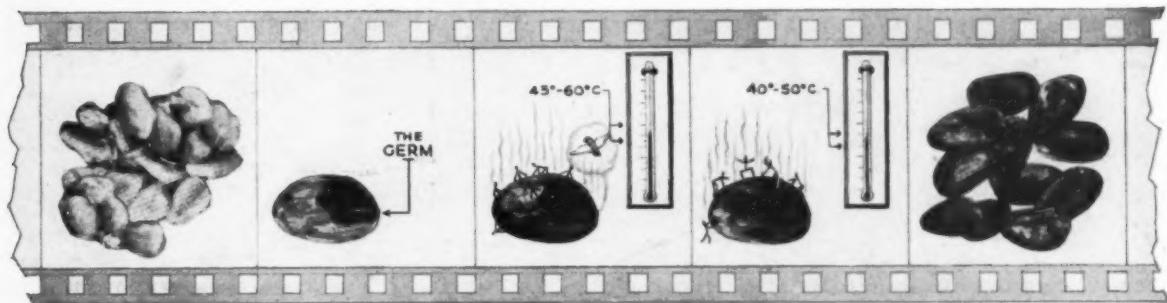
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THE MANUFACTURING CONFECTIONER

ARTIST'S CONCEPTION OF THE PROCESS OF CACAO-FERMENTATION:
(as described by Mr. Whymper)



1. Cacao beans, with adhering pulp, prior to fermentation. The beans are heaped up into piles or placed in fermenting bins to generate their own heat of fermentation.

2. Cross-section of a bean, showing the germ or life of the seed, which must be destroyed without killing the latent enzymes.

3. The temperature of the fermenting mass is permitted to reach a point at which the germ is killed and germination prevented.

The enzymes are being released.

4. Lowering the temperature of the heaped up mass is accomplished by turning the beans occasionally. The activity of the enzymes is thus encouraged.

5. The fermented beans, made mild by the break-down of tannins, etc., and their flavor made pleasantly aromatic through development of the aroma latent in the raw cacao.

Editor's Note:—Mr. Whymper is the Heywood Broun of the chocolate industry. He writes straight from the shoulder. He calls a spade a spade. He insists above all things upon having a free hand to write what he pleases without fear of editorial censorship. It has been our great pleasure to accord this privilege to so distinguished and well-versed an author.

Those of you who have followed Mr. Whymper's series thus far will appreciate the intense specialization—the years of widely traveled practical experience—which he has brought to bear upon the problems of the chocolate and confectionery industry. His broad grasp of cacao and chocolate practice and keen insight into the fundamentals of applied chocolate chemistry combine to make his articles of more than usual interest to the practical men of the industry.

Mr. Whymper's series will be continued in an early issue. In his subsequent papers he promises to take us step by step through the chemical and scientific principles involved in the selection of cacao beans and the manufacture of chocolate coatings. Be on the lookout for these articles.

ARE YOU A SUBSCRIPTION-MOOCHER?¹

Dere M.-C.²

Yes, by cricketty! You caught me in the act. Here's my 3 bucks . . . I don't suppose they would ever have amounted to much anyway. Send me the next twelve big issues for only \$3.00. I always did like bargains.³

Name

Still working for

As

Address

1. One who takes keen pleasure in reading the other fellow's copy of the M.-C.
2. The Manufacturing Confectioner Publishing Co., 30 No. La Salle St., Chicago, Ill.
3. Two years for \$5.00.

How Good Is Your Memory?

Week of Dec. 3 to 8	Week of Dec. 10 to 15	Week of Dec. 17 to 22	Week of Dec. 24 to 29
Week of Nov. 28 to Dec. 1			
Week of Nov. 19 to 24			
CUSTOMER'S SUGAR CARD			
BE SURE AND BRING THIS CARD WITH YOU			
This card is issued to protect our regular customers during the present Sugar shortage, and to assure them, if possible, one pound of Sugar each week.			
"FOOD WILL WIN THE WAR"			
Manager will punch out the dates on which the customer receives Sugar. Positively only one pound of Sugar in one week. No purchase of other goods is required. This card is not valid unless the Store Stamp and Manager's Signature appear on reverse side.			
THE GREAT ATLANTIC & PACIFIC TEA COMPANY			
Week of Feb. 4 to 9	Week of Jan. 28 to Feb. 2	Week of Jan. 21 to 26	Week of Jan. 14 to 19
Week of Jan. 7 to 12	Week of Dec. 31 to Jan. 5		

IT is in times of grave national emergency that the healthfulness and compelling need of sugars has been brought home forcibly to great numbers of people. Why—when memory of these crises is dulled—should the authorities permit the guerilla warfare of a self-willed, truth-disdaining tobacco company to cast a shadow upon the dignity and wholesomeness of the world's greatest food?

The Child and His Candy

Part III. "The Role of Candy in Science and Health"*

BY ORVILLE H. KNEEN

IS CANDY good for children? Dr. Herman N. Bundesen, Professor of Public Health at the University of Chicago, emphatically says yes! In his recent study of scientific facts, "The New Knowledge of Candy," Dr. Bundesen summarizes:

"There is no science which has made more rapid strides than that of dietetics. The knowledge of what to feed and when to feed it has become so definite, through study and observation and experiments by men of science, and so widespread through the agencies of the press, radio, women's clubs of this country, that every mother knows now what even doctors themselves did not know fifty years ago.

"While mother used to fry a dishpan full of doughnuts and we could eat all we could hold any hour of the day, weren't we told 'No, you

can't have any candy now. It isn't good for you'?"

"His body cries out for energy, and almost by instinct the youth seems to know that sweets will provide it. Their function is to provide the flame which gives the body heat and which burns up the fats of the body, to produce energy and perform labor. The fats may be likened to the coal in a furnace—the sugar to the flame that consumes it.

"For children, whose active little bodies make more movements in an hour than many grown-up ones do in a day, and who thus expend large quantities of energy daily, candy repairs the loss in a simple, quick, and accepted way. The little ones need a much larger proportionate sugar ration than adults."

Science Favors Candy for Children

As long ago as 1871, George M.

*Copy approved for scientific accuracy by Dr. Cary P. McCord, Director, Industrial Health Conservancy Laboratories.

Beard, M. D., had this to say about candy for children:

"Sugar and molasses produce heat and fat, and also sustain the system in other ways that are not understood. They are much longed for by children, and they do them good. They are palatable—the strongest possible argument in their favor—and they supply the fat and the warmth that children need."

The doctor did not know just why, but he did know that candy was needed by growing, active kiddies! Who can doubt that he was a successful as well as popular family physician? His stand for palatability is accepted by all dietitians today.

Dr. James A. Tobey, writing on Sugar as a Food in May, 1928, issue of Hygeia, published by the American Medical Association, says:

"Children may be fed sugar in moderate amounts without harm. On account of the activity of children, this form of carbohydrate is advantageous, and physicians and nutrition workers are today agreed that sugar in proper quantities is beneficial to growing children."

"In its ability to nourish, it replaces the fats, spares the proteins, prevents acidosis, and puts less strain on the digestive system. Sweets used in proper amounts will not harm the teeth when the general diet is balanced and the customary oral hygiene habits are practiced.

"Candy may be given to youngsters at the end of meals, when ice cream and other sweet desserts are also appropriate sources of the carbohydrate. Dietitians and child hygiene workers do not favor giving sweets between meals, chiefly because sugar blunts the appetite."

Dr. George Kanouse, specialist in public health work, says candy is good for children, if they are guided in eating it, and it is eaten after meals. He says it is not quantity that upsets digestion, but the time at which it is eaten.

Dr. E. M. Jaffa of the University of California and Dr. Wm. Brady, well known nutrition experts, are both quoted as saying that the growing child needs sugar for energy, and that candy between meals is perfectly proper.

A Physical Basis for Sweets-Craving?

The Department of Agriculture agrees with these modern scientific views, in Farmers' Bulletin 535:

\$12,000,000 Vs. TRUTH!

THE recent flood of Anti-candy propaganda set free by a moneyed giant of the tobacco industry has focused the attention of the candy industry upon the need of honest educational advertising to teach the public the truth about Candy. The American Tobacco Company urges women to substitute a dangerous habit for a wholesome sweet on the ground that too much sugar in the diet is unhealthful. The United States Department of Agriculture counters with "persons of active habits and good digestion will add sugar to their food almost at pleasure without inconvenience." The difference between these two statements is \$12,300,000 worth of advertising—advertising which the Journal of the American Medical Association has characterized as "essentially vicious."

Was Barnum right? Will the women "fall" for that stuff? The purpose of this series of articles is to provide confectioners with truthful ammunition to hurl back into the teeth of their contemptible defamer through the medium of their private advertising. See that this instalment gets into the hands of your advertising manager or advertising agency!

"Sugar would seem to be a food especially adapted to children, because of their great activity. The relatively small body of the child loses more heat from the skin for every pound of body weight than does the larger person, and children, on this account and because of their active life, require proportionately more heat units in the food than do adults. Fat, especially fat meat, which could readily supply this need, is often disliked by the child, and his relish for all kinds of sweets has doubtless a physical basis."

Dr. W. D. Sansum has made at Potter Metabolic Clinic, Santa Barbara, California, one of the most extensive studies of sugar ever made, especially in its relation to nutrition and correction of dietary ills. In *The Normal Diet* Dr. Sansum says:

"Adults doing ordinary work seem to thrive on diets containing two parts of carbohydrates to one part of fat. The fighting ration used by the United States Army during the World War contained four parts of carbohydrate to one part of fat. Experience has taught that such high carbohydrate diets make the most efficient soldiers.

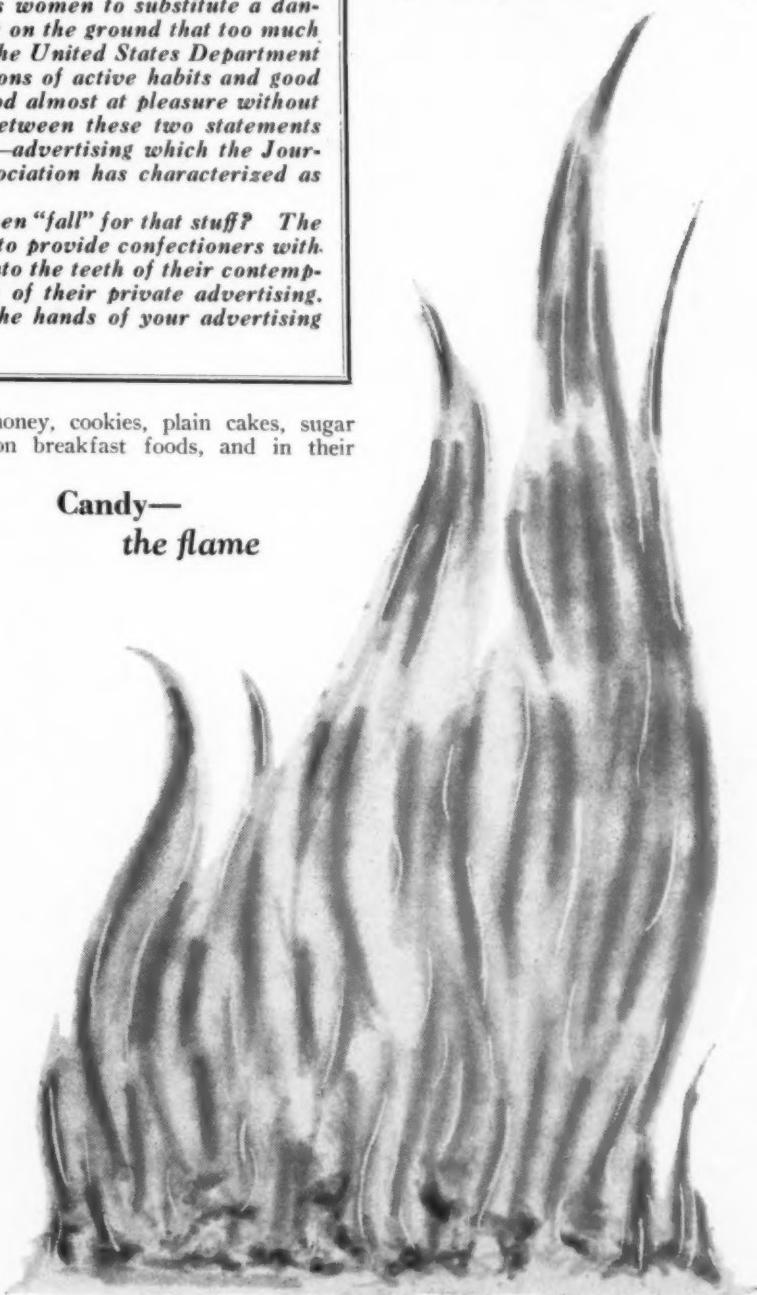
"Children may very well need a similar ration. I believe that their desire for extra sweets may be a natural craving for the foods which they need. Such diets may be easily built from normal diet menus by the addition of jams, marmalade, jellies, extra fruit juices, syrups,

milk, and the use of plain candy after meals, although the candied

You will want extra copies of this article for its valuable reference and quotations of nationally recognized authorities. To whom shall we send them?

honey, cookies, plain cakes, sugar on breakfast foods, and in their

**Candy—
the flame**



"—fat may be likened to the coal in a furnace—the sugar to the flame which consumes it."—

Dr. Herman N. Bundesen, Past President, American Public Health Association.

THE CHILD AND HIS CANDY



The Child— and His Candy

fruits should be preferred to the candy itself.

"One of the most striking additions to our knowledge concerning the food requirements of boys was made by Gephart in the study of food consumed by growing athletic boys in a boarding school. They not only took a daily average of 4,350 calories at table, but bought 650 additional calories at the neighboring store, making an average daily consumption of 5,000 calories. This phenomenal requirement is the result of their development at this age, and more important still, their strenuous activity.

Undernourishment and Juvenile Crime

"Criminologists in large cities attribute much of petty stealing of food to children whose hunger has been constantly unsatisfied. Parents too often make the mistake of allowing insufficient food to the active, adolescent child who may need fully as many calories as father and mother together. Undernutrition is often due to ignorance of the caloric requirements of the body under its many varied conditions of growth and activity.

"I believe that many people, especially women and children, can not lead normally active lives because they do not eat sufficient food. Many people who would think it the height of folly to attempt a long journey with an empty gas tank,

often start a hard day's work without breakfast, or without any more food in anticipation of a strenuous day than they would take previous to a day of comparative idleness. Usually 'nervous breakdowns' are due entirely to a combination or lack of sufficient food and worries that are inordinately magnified because of illness."

Daniel Russell Hodgdon, Sc. D., LL. D., President of Valparaiso University, Indiana, tells in his *Everyman's Science* why thin people feel the cold more quickly, and the remedy for this condition.

"Thin people lose heat more readily than stout people, as a large part of the active cells are on the surface and exposed. They require an abundant supply of food which will produce energy, such as fat, olive oil, and sugar used in other foods.

"The process by which cells are nourished through assimilation of food, while other foods are broken down to produce energy and heat, is called metabolism. Even if we do not take nourishment enough, metabolism continues, thus using up the cells faster than they are built up. It is absolutely necessary that the process of metabolism be well balanced to keep the body in good condition."

Underweights! Coal Up With Candy

Many thin people fail to realize that their skin surface, which is the

The Place for Candy Is in His Lunch Box

(See Column 1)

"His body cries out for energy, and almost by instinct the youth seems to know that sweets will provide it."—Dr. Herman Bundesen.

"—His relish for all kinds of sweets has doubtless a physical basis."—U. S. Dept. of Agriculture Farmers Bulletin No. 535.

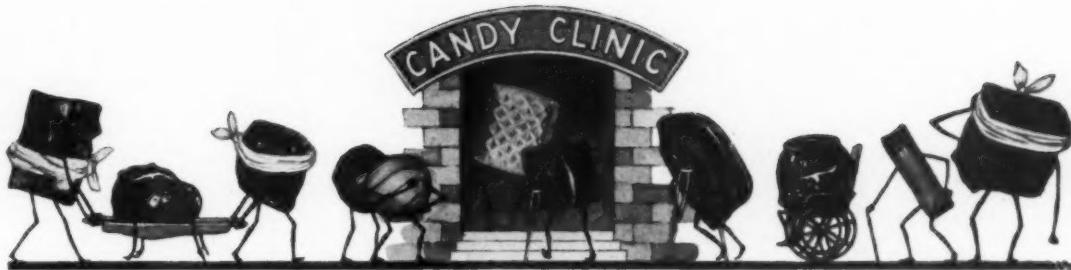
"—Their desire for extra sweets may be a natural craving for the foods which they need."—Dr. Sansom.

radiating area for heat, is larger than that of stout persons, pound for pound of weight. They must supply themselves with ample heat, and candy is one of their best sources of available heat. Sugar is the only food which is assimilated by the blood within about five minutes after being eaten.

That people do habitually starve themselves, from mistaken ideas as to diet (often eliminating sugar when it is greatly needed), is well known to hospital dietitians and physicians. Dr. Sansum was recently called in to treat a woman of fifty who for thirty years had been a chronic invalid, surrounded by doctors and nurses. Although confined to her bed, she was steadily losing weight.

She insisted that she took all the food she needed or could take. Dr. Sansum found it to be only 800 calories a day. This he gradually increased to three times as much, from a well-balanced diet including carbohydrates. In two months she had gained fifteen pounds, was taking regular exercise and enjoying a normally active life—on her feet.

"In the diet of the undernourished," says the Department of Agriculture, "larger amounts of sugar would doubtless help to supply adequate nutrition. A lump of sugar represents about as much nutrition as an ounce of potatoes. Persons of active habits and good digestion will add sugar to their food almost at pleasure without inconvenience."



The candy Clinic is conducted by one of the most experienced superintendents in the candy industry. Each month he picks up at random a number of samples of representative candies. This month it is \$1.50 assorted chocolates; next month it will be marshmallows. Each sample represents a bona-fide purchase in the retail market, so that any one of these samples may be yours.

This series of frank criticisms on well-known, branded candies, together with the practical "prescriptions" of our clinical expert, are exclusive features of the M. C.

THEIR MONEY'S WORTH FOR \$1.50? (well, it all depends—)

Below Par

Sample BN—No. 2

(Purchased in Chicago. Manufactured in Chicago.)

Appearance of Package: Fair. No wrap of any kind. Tied one way with gold cord. Left hand corner had a small pink bow, one inch ribbon.

Box: Pink and yellow. Printing in dark red. Extension padded top. Size of box, 8x4 $\frac{3}{4}$ x3 inches. Lace on two long sides.

Appearance of box on opening: Fair. Most all pieces scratched on top. Three pieces covered with fancy foil. (Three kinds of chocolate used: Milk, sweet and bitter sweet.)

SWEET CHOCOLATE:

Color: Too light.

Gloss: None.

Strokes: Very plain and carelessly done.

Taste: Fair. Cheap tasting.

MILK CHOCOLATE:

Color: Good.

Gloss: Good.

Strokes: Good.

Taste: Not good. Very greasy.

BITTERSWEET CHOCOLATE:

Color: Very dark.

Gloss: Fair.

Strokes: Very carelessly done.

Taste: Fair.

CENTERS WITH SWEET CHOCOLATE:

Nougat: Nougat dry; had almonds in them.

Double Walnut: Good.

Marshmallow: Had maple color, but could not taste any flavor. Marshmallow fair.

Filberts: Good.

Walnuts: Single. Good.

CENTERS WITH MILK CHOCOLATE:

Peanut Taffy: Good.

Almonds: Good.

CENTERS WITH BITTERSWEET CHOCOLATE:

Peanut Taffy: Good.

Apricot Jelly with Nuts: Good.

Pistachio Cream: Fondant good. Flavor poor.

Vanilla Cream: Good.

Raspberry Cream: Very good.

Maple Walnut Cream: Fondant good. Flavor tasted off.

Marshmallow: Good.

Lemon Cream: Good.

Bitter Almond Cream: Fondant good. Flavor off.

Chocolate Cream: Good.

Raspberry Cream: Good.

Caramel: Fair.

Raspberry Cordial Jelly: Very good.

Moulded Pieces: Good.

Assortment: Too small and contained entirely too many creams.

Packing: Poor; two bottom layers in bad condition.

Remarks: This package of candy is considerably below par for \$1.50 chocolates. Too many creams and not enough hard or chewy centers. The chocolate coatings were of mediocre quality. This box needs a few changes and more care should be taken in manufacturing the candy.

A Delight to the Eye

Sample WH—No. 2

(Purchased in a Chain Drug Store in New York City. Manufactured in Philadelphia.)

Appearance of Box: Novel and out of the ordinary. Cellophane wrapper without seals. Tied with blue cord four ways.

Box: Made to look like a chest. Scenes on all sides of pirates, and water scenes. Paper-hinged cover. Size, 6 $\frac{3}{4}$ x4x3 $\frac{1}{2}$ inches.

Appearance of box on opening: Very good.

COATING:

Kind of Chocolate: Sweet.

Color: Good.

Gloss: Very good.

Strokes: Plain, but neatly done.

Taste: Good.

CENTERS:

Vanilla Cream with solid tablet on top: Very good, but piece entirely too large.

Foil Cup, Vanilla Cream: Good.

Strawberry Cream: Good.

Triplet Almond: Good.

Date Paste with Nuts: Good.

Peanut Square: Peanuts good but candy grained.

Brazil: Good.

Moulded Tablets: Good.

Red Jordan Almond: Good.

Almond Nougat: Good.

Milk Chocolate, Vanilla Cream: Good.

Date Paste: Had an off-taste.

Marshmallow: Very tough and tasteless.

The above pieces were in a tray.

THE CLINIC

The bottom of the box contained two white crinkled crepe paper bags filled with gold and silver foiled chocolates, as follows:

Jelly Almond: Jelly tasteless and tough.
Parfait: Good.
Filbert Paste with Roasted Almond: Fair taste but very dry and hard.
Nut Nougat: Good.
Peppermint Marshmallow: Very good.
Vanilla Marshmallow: Good.
Raisin Paste: Good.
Peppermint Cream: Good.
Caramel: Good.
Raisin Cream: Fondant hard and tasteless. Raisin dry.
Pineapple Cordial: Very good.
Cherry Cordial: Very good.
Cordial Strawberry: Very good.
Cocoanut Caramel: Very good.
Packing: Very good.
Assortment: Very good.

Remarks: This is one of the best boxes examined this month. Care was taken in the manufacturing of this candy and good judgment used in laying out both package and assortment. About one-half of the goods were machine-dipped, but attractively done.

Over-priced?

Sample AP—No. 2.

(Purchased in a chain drug store in New York City. Manufactured in Boston.)

Appearance of Package: Fair. Cover very gaudy and printing too large. Floral design. Red, green, blue, and gold. Cellophane wrap, two seals.
Box: Extension. Size, $8\frac{3}{4} \times 5\frac{1}{2} \times 2\frac{1}{8}$ inches. Gold tape used to seal box.
Appearance of box on opening: Very flashy and cheap looking. All pieces wrapped with bright, designed foil. Green cups used. Gold partitions.

COATING:

Kind: Sweet chocolate.
Color: Too dark, almost as dark as bittersweet coating.
Gloss: Very good.
Strokes: Very neatly done.
Taste: Good.

CENTERS:

Cream Butterscotch with Roasted Almonds: Very good.
Parfait: Very good.
Cream Brazil: Too much fondant, not enough nut.

Maple Walnut Cream: Good.
Pistachio Nut Nougat: Very good.
Vanilla Cream: Good.

Four Vanilla Jordan Almonds wrapped in cellophane: Good.
Caramel and Plantation: Good.
Cocoanut Cream: Good.
Brazil: Good.
Vanilla Walnut Cream: Very good.
Foil Cup Cordial Pineapple: Good.
Foil Cup Cherry Cordial: Very good.
Brazil: Good.
Lemon Cream: Fondant good. Lemon rancid.
Caramel: Very good.
Orange Cream: Fondant good. Flavor weak.

Raspberry Cream: Very good.

Bitter Almond Sponge: Good.
Packing: Very loose, but partitions held all pieces in place.

Assortment: Good. Suggest that a good marshmallow peppermint cream, a jelly and a paste center be added to give further variety.

Remarks: The "get-up" of this box is not to be compared with other packages in the \$1.50 class. Everything has been done for flash. Centers and coating are good, but the

AMONG THE "BEST SELLERS" OF 1929

Is YOUR package pictured in this random grouping of \$1.50 Asst. Chocolates?



A typical gathering of retail packages, such as were picked up and analyzed by the Superintendent for this month's Candy Clinic

THE MANUFACTURING CONFECTIONER

price is entirely out of line for this type of goods.

Needs "Jacking-Up"

Sample PT—No. 2.

(Purchased in a high class independent retail candy store in New York City. Manufactured in New York City.)

Appearance of Package: Very attractive.

Box: White cellophane outer wrap. Two seals on ends. Gold cord with two tassels. Extension top, 9x5½ x2½ inches. Gold-printed lace design on top with blue color in lace. Red rose on right side. Printing, blue and red. Makes a very pretty box top.

Appearance of box on opening: Gold mat used, air buff pad. Gold topped partition. Too much colored foil used, cheapening the appearance. Did not look like a box in the \$1.50 class.

Kind of Chocolate: Sweet, milk and bittersweet.

SWEET COATING:

Color: Good.

Gloss: Good.

Dipping and Strokes: Fair.

Taste: Very good.

CENTERS:

Glacé Cherry: Too much coating used. Cherry could hardly be tasted. This was a moulded piece.

Almond Nougat: Nougat texture good but had taste resembling licorice. A moulded piece.

Fig: Fair, although slightly dry.

Solid Chocolate Pieces: Good flavor and texture. Fancy shapes, colored foil used. Very cheap-looking foil.

Brazil: Good.

Cordial Cherry: Very good.

Triplet Almond: Entirely too much chocolate used. This was a moulded piece.

Apricot Jelly: Good.

Lime Cordial Pineapple Fruit: Good.

Filbert Cream: Fondant very short and dry. No flavor. Filbert good.

Molasses Sponge: Good.

Vanilla Stick: Fondant very good. Hardly any flavor.

Single Filbert: Too much chocolate used. A moulded piece.

Lemon Cream: Good.

Raspberry Marshmallow Jelly: Good.

Vanilla Caramel: Good.

Filbert Clusters: Good. A moulded piece.

Raspberry Cream: Flavor tasted synthetic. Fondant short and dry.

Walnut: Too much chocolate. This is a moulded piece.

Chocolate Sponge: Good.

Milk Chocolate: (Only one piece in entire box.)

Milk Chocolate Vanilla Chew: A very poor piece of candy.

Bittersweet Chocolate: (Only two pieces used in entire box.)

Raisin Cream: Good.

Six Jordan Almonds (green and pink) used on top layer.

Jordan Almonds: Good.

Green, pink and red cordials used on top layer: Fair. Cordials wrapped lengthwise in cellophane. One cluster of orange cordials in cellophane.

Packing: Not at all good. Too loose. Recommend reducing size of or using smaller pieces.

THE CANDY CLINIC
30-41 CORNELL STREET
NEW YORK CITY

R

After Quality— Comes "Value Received"

H.W.D.
SUPERINTENDENT

Remarks: This box is not up to the standard set by the general run of \$1.50 boxes on the retail market. Some of the centers were of very poor quality and the moulded pieces were spoiled through the use of too much coating. The tin foil was very "loud" and cheap looking. The bottom layer was entirely too loose and most pieces were turned over. Top layer also loose; partition should be made in one piece so that it will stand up.

Quality and Simplicity

Sample PS—No. 2

(Purchased in a manufacturer's agency store in New York City. Manufactured in Boston.)

Appearance of Package: Very plain and not up to other boxes of this class. Blue paper wrap, large, cheap-looking label in left corner. Yellow cord and one seal; 7x3¾x2½ inches.

Appearance of Box: Very plain. White bond paper wrapper. Lavender ribbon-tie tied end to end. Plain white box. Trade mark in gold and red printing. Foil mat used, lace on two long sides. Top layer very attractively and well packed.

COATING:

Kind of Chocolate: Semi-sweet.

Color: Good.

Gloss: Very good.

Strokes: Neatly executed.

Taste: Good.

CENTERS:

Cocoanut Taffy: Very good taste, but stuck to the teeth. Suggest that a little more butter be used.

Opera Cream: Fair, flavor good; fondant a little dry.

Raspberry Fruit Cream: Flavor good, fondant dry.

Foil Cup: Glacé cherry center. No fondant used; good flavor. Cherry soft.

Orange Sponge: Very good.

Pistachio Nut Cream: Flavor good; fondant dry and grainy.

Butterscotch: Flavor good. Taffy too chewy.

Orange Peel: Fair.

Peppermint Cream: Flavor good. Fondant dry and grainy.

Nut Cocoanut Caramel: Good.

Vanilla Cream, Foil Wrapped: Flavor good. Fondant dry.

Nut Crunch: Very good.

Orange Cream: Good.

Green Jordan Almond: Shot-dipped on end: Good.

Molasses Plantation: Very good.

Marshmallow: Good.

Vanilla Nougat: Good.

Fudge: A little too short. Fair.

Pecans: Good.

Fig Taffy: Good.

Lemon Creams: Fair fondant. Short and dry.

Date: Good.

Ginger: Good.

Pistachio Nougat: Very good.

Packing: Very good.

Assortment: Very good.

Remarks: This box contained the new idea in chocolates; all small pieces, about 90 pieces to the pound. If the box and wrap were made more attractive this would be one of the best \$1.50 packages of chocolates on the market. More care should be taken with the cream centers, however, as they were not up to standard.

Centers Need Checking

Sample HY—No. 2

(Purchased in a chain retail candy store in New York City. Manufactured in New York City.)

Appearance of Package: Fair. A little too gaudy and blue color too bright. Cellophane wrap; two gold seals.

Box: Extension. Padded top in blue and gold. Size, 7¾x5x2½ inches.

Appearance of box on opening: One-third of pieces turned gray. Balance fair. Two fancy foiled pieces.

COATING:

Kind: Sweet Chocolate.

Color: Good.

Gloss: Good on pieces which were not grayed.

Strokes: Very good.

Taste: Sweet. Good.

CENTERS:

Nut Nougat: Good.

Walnut Cream: Very good.

Marshmallow Fudge: Fudge grained. Marshmallow texture like beaten eggs.

Silver Cup: Ganach on bottom, chocolate on top. Ganach was dry; did not taste good.

Filbert Praline Crystallized: Very good.

CANDY CLINIC

Maple Cream: Good.
Almond: Chocolate scroll on top. Good.
Plain Nougat: A little dry.
Glacé Pineapple: Good.
Raspberry Jelly Marshmallow: Marshmallow too light. Jelly grained.
Almond Paste Acorn: Good.
Triplet Almond: Almonds not roasted sufficiently.
Brazil: Very strong tasting.
Cordial Cherry: Too much fondant around cherry and no cordial whatever.
Nut Hard Nougat: Fair, not enough nuts used.
Filbert Cluster: Good.
Date Paste with Nuts: Good.
Caramel: Too hard and tasted like inferior caramel paste.
Raspberry Cream: Fondant very grainy; flavor good.
Coffee Cream: Very good.
Cocoanut: Too dry; not enough cocoanut used.
Pineapple Cordial: Very good.
Date: Fair. A little dry.
Chocolate Tablet, Cream Filling: Good.
Marshmallow: Good.
Lemon Cream: Very good.
Walnuts: Good.
Packing: Box too large. Pieces should be made smaller to fit box or a partition used.
Assortment: Good, but a good jelly or parfait would help this package.
Remarks: Some of the centers need looking over as they were not in the class of \$1.50 candy. A few more good centers would help the assortment.

Too Many Cheap Centers for a \$1.50 Package

Sample JN—No. 2

(Purchased in a chain drug store in New York City.)
Appearance of Package: Rather attractive. Resembled somewhat the \$2.00 type of package on the market today.
Box: Blue tin. Size 7x4x2½ inches. Gold trim. Name in gold. White cellophane wrap with two gold seals. Heavy gold cord.

Appearance of box on opening: Heavy board and air-buff mat tied together with thin gold cord. Neat looking. Moire liner.

Packing: Very good. Pieces all in place. Chocolate cups used.

Chocolate Coating: Tasted as though a sweet coating had been used with about 10% of Caracas added.

Color: A trifle light.

Gloss: Very good.

Taste: Very good.

Strokes: Fair. Some carelessly done.

Amount of coating used: About 35% to 38%.

CENTERS:

Almonds: Good.
Peppermint Cream: Fondant slightly dry. Peppermint fair.
Peanut Butterscotch: Good.
Fig: Layer fig cut. Fair.
Walnut: Walnut had a strong taste.
Date: Plain pitted date cut in half.
Nougat: More like a mousse. No nuts and hardly any flavor.
Peanut Butter Sponge: Good.
Vanilla Fudge: Fudge good. Flavor not good. Tasted as if caramel paste were "off" or nuts not good.
Nut Caramel: Fair.
Glacé Pineapple: Good.
Vanilla Nut Cream: Very good.
Vanilla Brazil Cream: Very good.
Raisin Cream: Fondant good. No flavor.
Cordial Cherry: Fair. Hardly any liquid at all. No flavor.
Filbert Cream: Fondant good. Filbert had a strong taste. Fondant had no flavor.
Chocolate Fruit Cream: Not a good eating or tasting cream.
Number of Pieces: Forty.
Assortment: Not very good for this price class.

Remarks: This box of candy is not up to standard, in that the centers are not what are generally expected at this price. The caramel, for instance, was a cast caramel. In one caramel there was starch between the caramel and the nut. Such centers as Peanut Butter Sponge, Fudge, Raisin Creams, poor Nougat, Peanut Butterscotch, Figs, Dates, etc., should be used sparingly in candy designed to sell at \$1.50 per pound. The assortment must be wider and a number of changes made in the centers before it can be classed with other \$1.50 boxes which are on the market today.

Good, But USE FEWER JELLIES

Sample HP—No. 2

(Purchased in a chain cigar store in New York City. Manufactured in New York City.)
Appearance of Package: Attractive.

Gold cellophane wrap; ¾ inch yellow ribbon, corner to corner. Small bow in right hand corner.

Box: Gold. Center of box, cream color, with package name in gold. Size of box, 9x4¾x2¼ inches. Two laces on long sides.

Appearance of box on opening: Neat. Gold tin foil used for liner. Gold cellophane layer on top. Five gold strips used as partitions. Four pieces foiled; gold and blue foil used.

COATING:

Kind of Chocolate: Semi-sweet.
Color: Dark.
Gloss: Good.
Strokes: Good.
Taste: Good.

CENTERS:

Marshmallow Nut: Marshmallow, maple color. Flavorless and tough.
Raspberry Cream: Good.
Vanilla Nut Caramel: Caramel good; nuts tasted strong.
Foil Cup: Center of chocolate paste with nuts. Nuts too finely ground and paste dry.
Brazil Nut: Good.
Sprinkle Chocolate-Covered Fudge with Nuts: Fair, partly dry.
Maple Pecan Cream: Good.
Raspberry Jelly and Marshmallow: Good.
Nougat: Good, but light on nuts.
Butterscotch: Good.
Triplet Almonds: Good.
Almond with scroll on top: Good.
Marshmallow Caramel: Good.
Plantation: Good.
Pecan Cream: Good.
Orange Cream: Good.
Apricot Jelly Marshmallow: Fair. Marshmallow tough.
Raspberry Jelly: Flavor good. Jelly tough.
Vanilla Sponge: Good.
Packing: Good.

Assortment: Good. In this package there were seven jellies and five marshmallow jellies. For a box in this price class this is entirely too many jellies.

Remarks: This is one of the best packages examined in this class. The assortment should be changed, however, reducing the number of jelly pieces to about one-half.

ARE YOU IN SEARCH OF NEW IDEAS?

—an occasional glance around you at what the other fellow is doing will broaden your perspective and help you to originate new ideas of your own.

—The Candy Clinic simplifies the task by searching the highways and byways of the candy mart for you.

On Giving a Dollar-and-a-Half's Worth of Candy for \$1.50

BY ERIC LEHMANN

THE results of the February Clinic make it quite clear that there is a distinction between giving a customer good quality and giving him "value received." The first requisite appears to be pretty generally recognized by the makers of \$1.50 assorted chocolates—the second, not so much so. Although of a quality acceptable in the dollar group, the "weak sisters" shown up in the \$1.50 survey, are most seriously lacking in the little requirements which the \$1.50 customer demands and the \$1.00 customer probably knows he has no right to expect. Details of findings, apparently insignificant in themselves, become of great importance in the aggregate, where the eye as well as the palate must be met and satisfied. A piece of ribbon here, a foil layer or a fancy liner there—these all-important trifles were in several instances neglected—to the detriment of an otherwise attractive looking package. Dollar-and-a-half chocolates are for the eye to appreciate and the mind to enjoy. The thrift and economy which dictate the simple charm of the dollar package must give way to a more lavish use of materials. At \$1.50 the consumer has been educated to expect beauty of appearance as well as good quality in the candies themselves. In at

least one instance, this requirement has been met with and in another generously exceeded. It is significant, however, that the package with the finest contents bore the least imposing wrap—\$2.00 chocolates with a \$1.00 wrap.

Of an even graver nature is the complaint that some of the coatings are not up to the standard for this class of merchandise. In one or two instances, the stroking and dipping were crudely done. Poor coatings or careless workmanship in a \$1.50 package are inexcusable. Some of the packages were loosely packed, with the result that when I came to open them up, I found the pieces turned over and in some instances badly scratched. "Rideability" is a point which I have stressed in previous articles. Do you make any systematic check-up of your goods after they reach the retailer's hands in order to determine how they "ride"? It is not customary to label candy boxes "Right side up—handle with care," and it is quite possible to pack candies in such a way

that a warning of this sort is unnecessary. It seems to me that there must be considerable difference of opinion as to whether the chief function of dividers, layers, mats, etc., is to keep the pieces in their proper places or to make the customer think he is getting more for his money. As a matter of fact, it should be possible to accomplish the latter end without sacrifice of the former. There is a distinct "knack" to laying out a package so that it will ride well, look like a million dollars, and still not betray a too lavish use of findings—and evidently some of the "boys" have become careless or are a little out of practice.

As to the centers, we all know that figs and dates are cheap. Also so that the extensive use of jellies is a legitimate means of paring costs in low-price assortments. But this inclination to give the customer cheap centers "till it hurts" should be guarded against as much as possible. There is a place even in the \$1.50 package for a few cheap centers, of course, but be careful you don't overdo it or one of these days your \$1.50 package will enjoy a reputation as a "nice dollar box of candy." The customer with the \$1.50 appetite expects something besides "quality." He wants "value received."



E. A. Hoffman Candy Co. Builds New Plant

Plans have been approved and ground will soon be broken for the E. A. Hoffman Candy Company's daylight factory, to be located at 6600 Avalon boulevard.

The building proper will be of Class A construction, 79 by 220 feet, two stories and basement, with provision for future expansion. It will be equipped in the most modern manner for manufacturing and distributing its products and will be the largest candy factory devoted to fine chocolates west of the Mississippi river, it is declared.

Arrangements now are under way for the installation of modern and efficient equipment for volume production. Special air conditioning equipment will be installed and a large portion

of the building will be insulated to insure proper temperatures. Labor-saving machinery will be installed for the handling of raw materials, and special attention has been given to the flow of goods through the factory.

The E. A. Hoffman Candy Company had its inception fifteen years ago. It has grown steadily since that time, and now is recognized as one of the leading houses in the manufacture of chocolates in the West. From a small local business a few years ago the concern has grown to where its output is shipped in carload lots to various points throughout the country.

The company is a closed corporation with the following personnel: E. A. Hoffman, president; Ben Myerson, vice-president; H. C. Bartosh, secretary-treasurer.



Fiora.

THE Sweet-Test Candy Factory has afforded me more than one sleepless night, but nothing that I remember ever puzzled me more than the series of strange coincidences which occurred at the very peak of the Christmas rush last year.

It was December the 12th, and we were jammed up with a flood of last-minute Christmas orders—far worse than usual because our Sales Department had developed a bad case of cold feet when the Lucky campaign got under way, and cut their original Christmas estimates 10 per cent.

So when Joe Byrnes (Joe is our raw material buyer—you know the type—never buys anything on the spot if he can get it on a “boat” due to dock 29½ seconds after you’ve made up your mind to close down the plant) came up to make his weekly tour of inspection through the plant with me, I was so overjoyed to see him that I was sorely tempted to fall upon his neck. However, it was a bad time to pick an argument with the purchasing department—with an emergency requisition on the way down to the office for at least seven or eight different items on which we had inadvertently allowed ourselves to run short. So I diplomatically took him in tow and proceeded to kid him about the efficient way in which he was running his department, and how the firm ought to take good

The Mysterious Episode of the Factorols

*As related to me by George Hobson,
Superintendent of “Sweet-Test, Inc.”*

BY NORMAN W. KEMPF

care of him for Christmas, and such rot.

In fact, I believe I made the fatal remark that I had never, in all the years I had been in the candy business, seen a December when we had had less trouble with our machines, our help, and our raw materials. But scarcely were the words out of my mouth when we walked into the Enrober packing room and found one of the belts, loaded with peppermint creams, standing idle!

“Grinding ‘em out awful fast,” said Joe with a sniff. “Ten o’clock and all through with the day’s work.”

I let this nasty crack go over my head and departed hastily to find Emil, our Enrober man, whose job it was to see that the machines were kept moving. Here was a sweet how-do-you-do. Lord knows how long the belt had been standing idle and here we were behind on our orders, and at a time when every minute of interrupted production meant dollars out of the cash register.

Emil was nowhere to be found. Finally I went back into the packing room and collared the forelady, who serenely assured me that the machine was not out of order and that, in fact, Emil had stopped it himself and gone downstairs to look for me!

Meanwhile, Joe had sauntered over to the belt and helped himself to a mint (he always eats up the day’s profits on his way through) as I stormed around, somewhat futilely I confess, trying to find out from someone why Emil had stopped that machine.

Well, Joe took just one bite of his peppermint and the most ghastly expression came over his face. “George,” he said in a hoarse whisper, “there ain’t gonna be no Santa Claus for you and me this year. Here, taste this!” and with that he

handed me a mint and made a bee-line for the telephone.

I bit off a piece more or less mechanically, secretly wondering if the boy had not gone “goofy.” But one taste and my mind was galvanized into action. Joe was right. It was horrible. It tasted like nothing so much as a second-hand toothbrush.

Joe was having difficulty getting his number, so I jumped on him. “You big lumox! You would save a paltry twenty-five cents a pound on that job lot of peppermint oil, wouldn’t you? Now see what you’ve done. Six hundred pounds of candy shot to h—! Santa Claus? Why, boy, you’ll thank your stars if you’re not canned for this!”

Joe placed his hand over the mouthpiece of the telephone just long enough to stage this comeback:

“That’ll make two men out of a job then, won’t it? Remember, you told me you were down to the last drop when this lot came in? Well, unless you were lying to me, you sure must have flavored a sockful of candy with that same peppermint oil during the past three weeks!”

“It takes some time for it to go bad, don’t it?” I fairly shouted back at him. “You know blamed well it didn’t taste like that when I first saw it!” With that parting remark, I left precipitously for the cream room, after warning the forelady to stop packing peppermint creams.

Now Pete Avinato had been my cream foreman for a great many years, and I had quite naturally grown to respect his judgment and ability. Yet as I entered the cream room, there he stood, apparently all unconcerned, just about to add the wretched oil to a new batch of cream! I had caught him just in time.

“Stop!” I cried. “How many times must I tell you to sample each flavor in a handful of cream before

ector Bolshevik

A short mystery story based upon a series of actual happenings in a well known candy factory

Complete in This Issue

READING TIME--20 MINUTES

you go ruining the whole batch? That's oil of pyorrhea you've got there."

"What?" said Pete indignantly. "I spoil no batch with *this* oil. This best oil we had in long time." And as I stood aghast at this unexpected rebellion, what does he do but shove the bottle of peppermint oil under my nose, saying, "See?"

It seemed incredible, but there was really nothing the matter with the oil. Not a trace of the disagreeable character which had ruined the creams of the day before.

"Is this the same bottle of oil you were using yesterday?" I asked him sharply.

"Ver' same bottle," and he went over and unlocked the flavor cabinet to show me that it was actually the *only* bottle of peppermint he had.

I was almost convinced that it could not have been the oil. Still, to make assurance doubly sure, I took a small chunk of fondant, poured a few drops of the oil on it and worked it in with my fingers. No, my nose had not deceived me, for apart from the fact that I had gotten the test sample a trifle too strong, the character of the cream was perfect.

Evidently it was something besides flavor. But what? There are only a limited number of ingredients which go to make up a fondant formula in the first place, and outside of the flavor, they are about as staple as the ingenuity of man can make them. Nevertheless, I diligently examined and tasted Pete's stock of every item—the sugar, the corn syrup, the cream of tartar. Certainly so far as my physical senses could judge, there was nothing the matter with anything he had.

But even as I stood contemplating the unexpected turn which the trouble had taken, the forelady of

our hand-dipping room came rushing up to tell me that the butter creams which her girls had started to dip tasted "fishy"! She submitted a handful of the centers in evidence. Fishy? Fishy was no name for it.

To one who has boasted of the true butter character of his butter creams, the butter cream centers were nothing short of nauseating. Unmerciful fates! Was not one such catastrophe enough?

That butter takes on the odors of products with which it is stored, I knew. Evidently this particular lot of butter had been stored next to fish. There could be no doubt of that, and I could readily understand how this might happen due to the carelessness or ignorance of some warehouse employe. But the peppermint?

Inwardly I cursed the penurious buying policy which I felt lay at the foot of these disasters.

But as though that libelous thought had been sensed by the person toward whom it was directed, who should march in again but Joe, triumphantly waving a piece of candy and shouting: "Why, it's in your cream, George, it's in your cream!"

"Sure, you poor baloney, I know it's in the cream. What's that you've got there? One of those precious butter creams with *your* phoney butter in it? I should think you'd be ashamed—"

"Butter creams?" shouted Joe, sort of dazed like. "Is there something the matter with them, *too*? This is no butter cream. This was intended for a *vanilla* cream!"

That was the last straw. Whatever composure I may have exhibited up until then was completely knocked out of me by this new disclosure. I took one taste of the cream which Joe handed me and was completely sunk.

wrong with *that*," Joe demanded, his lip in a sarcastic curl which told plainly that his anger was now thoroughly aroused. "You made that

"Tell me, if you can, what's d— vanilla extract yourself!"

"But, Joe," I protested as we made tracks for the packing room gesticulating like what must have resembled a couple of wild men, "that's the same barrel of extract we've been working on for the last three—"

"Just like the peppermint!" was the sneering retort.

As we burst into the packing room again, I called to the forelady to hold up on the packing of cream goods of every description and to send Angie upstairs to the nougat department for enough nougat to keep the crew busy on until we got to the bottom of things. Turning to Joe, I muttered something like, "Joe, this is certainly the worst mess I've ever been in!"

But there was no sympathy forthcoming from that unhappy quarter.

"The sugar, the 'glu,' and the 'doctor' all seem to be okay, Joe. Did you look at them?"

"Yes. They looked all right to me." Then said he significantly: "George, I never was partial to some of those big Bolsheviks you have working for you in there."

"You mean—?"

"Why not? Didn't you tell me you had to fire one of them only yesterday because he was a disturbing influence?"

"Fiora ——. He tried to start a walkout. Do you suppose that big Bolshevik would have had the nerve to try to pull anything like this?"

"Nerve? Those fellows have nothing else but." Suddenly a thought flashed over me. Where was Hutt at a time like this?

Sherwood Hutt was our chemist, our scientist, our trouble sleuth. He was the logical man to run down the evidence for us. Why didn't we call him? Actually, I knew why *I* hadn't. Sherwood was so patronizing—everything was so "simple" to him, that subconsciously I hated to call on him. I always felt as though he went out of his way to try to make a monkey out of me. Calling on him was an admission of defeat.

The same thought must have crossed Joe's mind, for he said: "Did anybody think to call Sherwood?"

"No, I didn't."

EPISODE OF THE FACTORY BOLSHEVIST

"Don't you suppose we ought to get him busy on it without losing any time? Suppose that should have been a handful of *poison* which your Bolshevik friend threw in those batches! Frankly, I don't feel any too good after eating that stuff."

"Don't say that, Joe. I ate more than you did and I have a wife and three kids dependent upon *me*. Let's get him on it double quick. Better still, I'll get him started while you dig up the employment cards and see if the office can lay their hands on that skunk, Fiora."

"Right."

And so with a lump in my throat about as big as a silver dollar I made my way shakily to the laboratory. There sat Sherwood perched on a stool with his nose in a bunch of glassware, vacantly staring into space as though he had nothing to do until tomorrow. Nero fiddling while Rome burned!

"For the love of all that's holy, Sherwood, why aren't you ever around when we need you? Do you realize what's happened? Half the factory's been poisoned, the cream department's shot, and here you sit. Aw, come on, will you? Snap into it!"

Without even deigning to look up, the chemist countered with "Perhaps if you'd let the operator know where *you* are once in a while, it

might not be necessary for Emil to break his neck running up and down eight flights of stairs looking for you."

"Did Emil tell you about it?"

"I told Emil."

"The devil you did!"

"All right. The devil I did."

"Well, what are you doing about it? Answer me! I'll tell you now, feller, I ate seven of those creams all told, and I feel sick!"

Sherwood just looked up at me with one of those stupid grins. It meant nothing to him, my eating poison. I don't suppose he ate any of them. Trust him.

All of a sudden he wheeled around with: "Get out of here for a couple of minutes, will you? Come on, now, be a nice fellow; keep quiet or get out. I've got to sit quietly for a few moments and think."

"And what am I supposed to be doing while you're trying to do the impossible?"

"Relax and give the 'spirits' a chance to come through."

But for the next few minutes I stood fascinated as he proceeded with his experiments. He took one of three test tubes from a rack. In each was a crystal clear, colorless fluid. Into the first he poured from a glass-stoppered bottle a few drops of another transparent liquid. As the drops struck the fluid in the test tube, they became instantly transformed into a thick white cloud. Mystified by this magic of the modern chemical laboratory, I momentarily forgot the deepening mystery which was threatening to cost all of us our jobs.

Sherwood took the second test tube and repeated the performance—and with precisely the same result. Finally, the third—and again the white cloud.



JOE BYRNES

—The Buyer

"Funny," Sherwood muttered, half to himself. "I could have sworn there was nothing like *that* in the cream room."

"Then you suspect——?"

"Dirty work at the crossroads, old man."

Joe was right. It was that miserable bum, Fiora. In my mind's eye, I would picture my hands closing around his thick, ugly neck.

"Each of these test tubes," the chemist continued, "contains a sample taken from one of your cream batches. Number one is butter cream; number two, vanilla, and number three is peppermint. There is a surprising similarity between them——"

"Yes, if you mean that they are all equally rotten. Boy, you can't tell me *those* flavors are similar. The fact is, before I tasted those I never knew how many different *horrible* flavors there were!"

"Just a moment, Hobson. I think I can prove it."

So saying, he walked over to a cabinet and withdrew from its inner recesses a bottle containing a small quantity of gray metallic particles. Then he went over to the little icebox in which he keeps his more perishable supplies and took out a quarter-pound print of ordinary table butter. Taking a small piece of the butter on the end of a palette knife, he poked it into a clean test tube. Then he lighted a Bunsen burner and held the test tube over the flame until the butter melted. Finally he added the steel gray particles to the melted butter, shook the ungodly mixture over the flame for a second or two, and then shoved the business end of the test tube under my nose.

"Decayed fish!" I exclaimed in astonishment.

"Precisely."

"And you think then that that scoundrel sneaked off some of that wicked stuff from your cabinet over there and dumped it into the butter cream?"

"My dear man, what *are* you talking about? What scoundrel?"

"I meant to tell you. You know I fired Fiora yesterday."

"Well, what of it?"

"Well, Joe and I have come to the conclusion that he set about paying off all his grudges by putting things on the blink before he left. The fact is, the office has the cops out looking for him now. Do you suppose we've been poisoned?"

THE MANUFACTURING CONFECTIONER

"Poison? Bosh! That was just plain iron filings I added to that butter——. Let's get Pete Avinato and see what he knows."

"I've already sent for him again. Here he comes off the elevator now."

"Pete," said I, as the cream foreman shuffled into the laboratory, "who made up those batches of cream yesterday? Fiora?"

"No, sir. I make myself."

"Didn't Fiora help you?"

"No, sir. You call Fiora right after lunch and he go downstairs to see you. Then your assistant call me on telephone and say: 'Pete. Mr. Hobson let Fiora go. You pick up where he leave off.'"

"Do you mean to tell me that you didn't see Fiora after that?"

"No. He go home."

"When were these batches made?"

"About t'ree 'clock in the afternoon."

Sherwood looked at me as much as to say, "Well, are you satisfied?" and then cut in with:

"Pete!"

"Yes, sir."

"Do you use crystal syrup from the crystallizing room?"

"Sometime maybe. Last I had from them I use up two-t'ree week ago."

"And you're quite sure you didn't use any in making up those batches yesterday afternoon?"

"No. All gone long time."

Sherwood Huttis paused for a moment in his interrogation while Pete shifted uneasily from one foot to the other.

Suddenly he shot out, much to my astonishment:

"Pete, where do you keep your salt?"

Pete just looked at the chemist in blank amazement. "Salt? I got no salt in cream room, Mr. Huttis. Never use no salt—never."

"Of course not, Sherwood," I observed. "You'd know better than to ask that if you'd look at the formulas in your cabinet over there."

But Sherwood Huttis ignored my remark, and continued: "Do you get any materials from any other place besides the crystallizing department?"

"No, sir."

"Are you sure?"

"Absolutely."

"Oh, yes you do sometimes, Pete," I interrupted. "How about

the half barrel of fruit powdered sugar I sent up to you the other day from the pan room? Didn't you use that up?"

"Yes, sir. Come t'ink, I use up yesterday afternoon."

"About the time you made up those three bum batches?"

"Yes, sir, about time I make bum batches." But Pete added quickly: "You told me to use up, Mr. Hobson."

As I can't say I relished the prospect of having suspicion point my way, I explained to Sherwood how I had used part of a barrel of fruit powdered in making up some samples of pan goods and then sent the balance up to Pete so that it would be used up promptly and before a lot of dust settled into it from standing around.

But by this time Sherwood was looking hard at me and taking in every word I said.

"All right, Pete," said he suddenly, while scarcely taking his eyes off me for a moment, "I guess you can go now."

Pete needed no second invitation, but banged out of the door with what seemed to be a deep sigh of relief. As the door banged shut, Sherwood opened his mouth to speak.

"You can't pin anything on me, Sherwood," I blurted out hastily. "I was around all the time that barrel was being used, and—why, I even saw it go on the elevator."

"Did you ride up with it?"

"Of course not, you darned fool! Say, are you just trying to be funny?"

Sherwood grabbed the phone. "Give me the stock room....Oh, hello, Howard. Say, tell me, what

did you ship upstairs to the cooking floor yesterday morning? Think hard....Yes....Yes....Good! Do you remember which car that went up on?....All right. Wait just a moment, Howard. I want to talk to Mr. Hobson here."

Turning to me, he asked: "Which car did you send that sugar up on?"

"Number two, but what——," but Sherwood was stiff again.

"What's that, Howard?....Oh, you don't say!....Does that happen very often?....No, don't worry, I won't. Well, thanks, Howard. You've told me about all I need to know."

"Now you listen to me!" I snapped at him as he hung up the receiver. "Why waste a lot of valuable time on such stuff as that? I told you that I personally saw that barrel of sugar go on the elevator and told Tony to take it right up to Pete. Pete says it got there okay. What's the big idea? Do you suppose it sprouted between floors?"

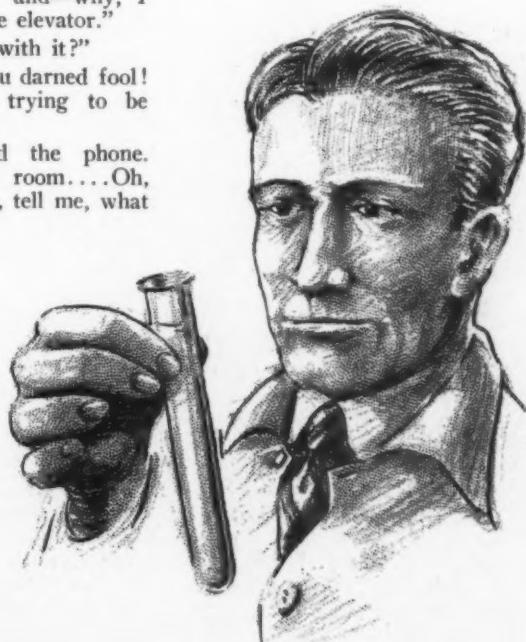
"We shall see presently, Hobson. Please send for Tony."

I complied somewhat reluctantly by yanking the surprised Tony off his car and bringing him into the laboratory. Sherwood insisted upon trying to get him to remember everything he had carried around the building the day before.

"No, Mr. Huttis," he answered,

SHERWOOD HUTTIS

—Chemist and
"Trouble" Sleuth



EPISODE OF THE FACTORY BOLSHEVIST



ANGIE

—of the Packing Room



TONY

—the Elevator Man



"how can I remember? We so busy now I carry many t'ings ever-day."

"Anyway, Tony," I put in, "you remember I gave you a barrel of sugar from the fourth floor yesterday and told you to take it up to Pete?"

"Yes, Mr. Hobson. I gave him."

"Was there anything else on the car at the time?" asked Sherwood.

"I guess so. Always is."

"Do you remember what it was?"

No. Tony only shrugged his shoulders.

"Think hard, Tony," I persuaded, "nobody's going to fire you of anything."

With that Sherwood wheeled on me with: "Don't be too sure. Suppose you ask Angie to come down. Maybe she'll refresh Tony's memory here!"

"Angie?" said I, but the name was scarcely out of my mouth when it became plainly evident that Tony had suddenly become very much alarmed.

"Oh, Angie didn't do it, Mr. Hutt," he was almost pleading, "Angie didn't do it."

"Didn't do what?" snapped Sherwood.

"Er—I mean she didn't do nothing, sir," but the unfortunate Tony had inadvertently let the cat out of the bag.

"Come, come," said I quickly, "tell us what happened that Angie didn't do."

"She didn't knock the starch trays over. It was an accident."

"What starch trays were those?"

"Jim gave me truck piled so high with starch trays," he explained. "Jim always stacks starch trays rotten. I start car. They fall over."

"Tony," asked Sherwood, "did you happen to have a bag of salt on the elevator when that happened?"

The salt again. What could Sherwood be thinking of?

"No, no," said Tony, "I don't remember no salt."

Sherwood picked up the phone as though to ask for Angie. But the threat was never carried out. Tony broke down and confessed everything. Yes, he *had* had a bag of salt on the car. After I gave him the barrel of sugar, he went back to the stock room for other materials for the cooking floor, and had taken on the bag of salt, which he laid lengthwise across the top of the open barrel of sugar. He also took on a truckload of starch trays and —Angie.

Something happened between Tony and Angie after the car left the stock room floor (it wasn't entirely clear from Tony's explanation just what) and crash! over went the starch trays, ripping a hole in the bag of salt. Being of the free-running variety, it lived up to

its reputation and poured copiously into the open barrel below.

Tony and Angie decided hurriedly that no harm could come from this, and that since the salt looked exactly like the sugar, no one would be any the wiser. So they said nothing to anyone and delivered the devilish mixture to its destination.

Poor Pete had, of course, never noticed the layer of salt on top of the fruit powdered sugar, so the Sweet-Test factory was made sadder and wiser by three hundred pounds of scrap candy.

After I had dismissed Tony with a word of warning to report such accidents in the future, I turned to Sherwood and asked him how he had gotten the idea of the salt on the elevator.

"It was quite simple, my dear Hobson. All three bad batches of fondant gave me a strong reaction of chlorides. Now the commonest chloride in use about a candy factory is sodium chloride, which is the chemical name for ordinary table salt."

"Those creams didn't taste salty, or I would have noticed it."

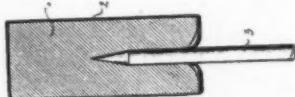
"You think you would, Hobson, but the fact is, you didn't. The

(Continued on page 65)

WHAT'S NEW?

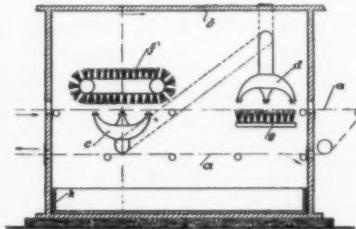
New Patents

1,694,458. CONFECTION. John Webster Trauger, Binghamton, N. Y., assignor to Fair Play Caramels, Inc., a Corporation of New York. Filed May 1, 1926. Serial No. 105,948. 2 Claims. (Cl. 99—16.)



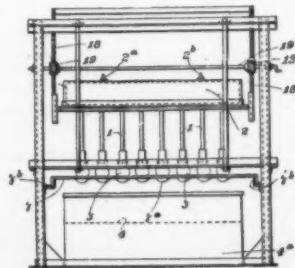
1. An article of commerce comprising a piece of confectionery, a wrapper thereon and folded over the ends thereof, and an impaling stick piercing one end of said piece of confectionery and extending through the folded end of said wrapper and tending to retain the same thereon.

1,694,590. DEVICE FOR DISPOWDERING CONFECTIONERY. Carl Göpel, Halle-on-the-Saale, Germany. Filed Jan. 21, 1927, Serial No. 162,612, and in Germany Jan. 28, 1926. 3 Claims. (Cl. 107—44.)



1. A device of the character described for dispowdering pralines and the like comprising an endless traveling sifting apron for carrying the articles, air-blasts arranged so as to play on said apron from opposite sides of the same, and a resilient support for the articles arranged opposite each air-blast.

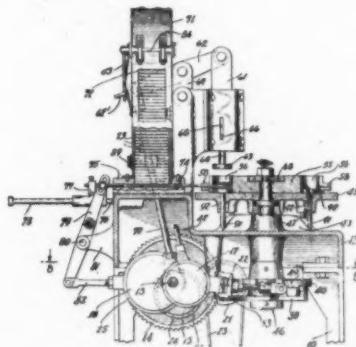
1,694,576. MANUFACTURE OF CONFECTIONERY. William Ernest Bamford, Belfast, Northern Ireland. Filed Sept. 9, 1926, Serial No. 134,474, and



in Great Britain Sept. 17, 1925. 23 Claims. (Cl. 107—1.)

7. A device for the manufacture of confectionery comprising an expandable and contractible member, means whereby said member may be expanded and contracted, a vessel adapted to contain soft confectionery material, mechanism for lowering said member into said confectionery material and for raising the said member, with a coating of confectionery material adhering thereto, clear of said vessel and an uprising flange on said member adapted to form an opening in said adhering confectionery material.

1,692,559. Candy-Making Machine. Eseck C. Miller, Newark, N. J., assignor by mesne assignments, to Racine Confectioners Machinery Company, Racine, Wis., a Corporation of Wisconsin. Filed Dec. 7, 1922. Serial No. 605,516. 13 Claims. (Cl. 107—8.)

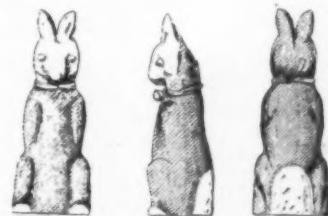


8. In a lollipop machine, a turntable having a plurality of mold cavities, a plunger adapted to co-operate with said cavities successively, and means for rotating said turntable to bring said cavities successively into position to co-operate with said plunger, said rotating means comprising a ratchet connected with said turntable, a pawl for advancing said ratchet, a second pawl for preventing reverse movement of said ratchet, and a third pawl controlled by movement of said first-named pawl for limiting the advance movement of the ratchet.

12. The combination with sizing and feeding rollers, of a guideway extending to and from said rollers and disposed axially of the passage between the roll-

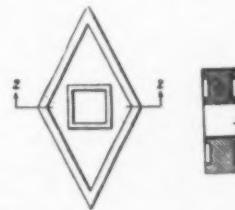
ers, and a cutting device disposed transversely across the delivery end of the guideway, the cutting device comprising upper and lower blades pivotally supported at opposite sides of the guideway, means for causing the blades to simultaneously move in opposite directions, and a hammer adjacent the said blades and adapted to be operated subsequently to the movement of the blades to sever the candy material to drive the separated section thereof away from the blades.

76,977. Candy or Similar Article. Carl M. Baldwin, Columbus, Ohio. Filed March 31, 1927. Serial No. 21,415. Term of patent 14 years.



The ornamental design for candy or similar article as shown.

76,942. Marshmallow Candy. William W. Knorpp, Brooklyn, N. Y., assignor to Knorpp Candy Company, New York, N. Y., a Corporation of New York. Filed May 6, 1927. Serial No. 21,872. Term of patent 14 years.



The ornamental design for marshmallow candy as shown.

76,776. Hallowe'en Candy. Willis William Cassidy, Salt Lake City, Utah. Filed June 16, 1928. Serial No. 27,167. Term of patent 3½ years.



The ornamental design for a Hallowe'en candy, as shown.

Proposed Confectionery Sanitary Code

Prepared by

CAREY P. McCORD, M. D. and Staff
of the Industrial Health Conservancy Laboratories
In Collaboration With The Manufacturing Confectioner

SECTION IV

General Provisions and Stipulations of the Sanitary Code

NO SANITARY code of any practical worth may be so precise in its specifications as to provide for every contingency connected with the sanitary protection of confectionery products and the workers who make them. When, therefore, the detailed specifications later set forth fail to cover a precise situation, the following general principles obtain as representing fundamentals:

- I. The legal requirements governing the manufacture and/or marketing of confections in this country, and its divers territorial subdivisions should be complied with as minimum standards.
- II. The use of any raw material or re-used material possessing any quality conducive

to damage to the consumer of confections so produced, is to be avoided.

III. The maintenance of any physical condition on the premises in which confections are produced or marketed, the presence of which is conducive to damage to the consumer of confections so produced or marketed, is to be avoided.

IV. The utilization of employees in the production of confections whose mental or physical status, or habits, lead to confections conducive to damage to the consumer of such confections, is to be avoided.

V. The maintenance of any condition of work or work environment inimical to the health and safety of employees is to be avoided.

One candlepower is approximately equal to one watt consumption in a tungsten lamp.

The lumen is the unit of light flux. One lumen of light is that quantity required to illuminate one square foot to an average intensity of one foot candle.

Illumination may be practically measured in any confectionery through the application of small, inexpensive foot candle meters or illuminometers. The use of these instruments requires no expertness and only experience such as may be gained by about one hour's intelligent study and experimentation.

In the confectionery a minimum of two foot candles of light should be present for the following operations, although a more desirable intensity of light range is from three to nine foot candles.

Candy Making	Foot candle minimum	Intensity preferable
Cooking over furnace..	2	3 to 9
Cooling slabs.....	2	3 to 9
Cream beater machines.....	2	3 to 9
Dipping (hand).....	2	3 to 9
Moulding	2	3 to 9
Revolving pan.....	2	3 to 9
Spinning bench.....	2	3 to 9
Weights and measures.....	2	3 to 9
Wrapping and packing	2	3 to 9

In other portions of the confectionery the following minimum intensities of light are specified:

Location	Foot candle minimum	Intensity preferable
Passageways	½	1 to 2
Elevators (frt., pass.)	½	1 to 3
Stairways	½	1 to 2
Locker rooms	1	2 to 3
Wash rooms	1	2 to 3
Toilet rooms	1	3 to 3
Store rooms	1	2 to 3
Offices	5	6 to 12

Natural Illumination

Daylight may be measured by the same instruments as were suggested for artificial illumination, but with much less satisfactory results. When daylight is the source, twice as many foot candles are required as when artificial light is the source. Use the



THE MANUFACTURING CONFECTIONER

artificial illumination standards above multiplied by two for minimum requirements for natural illumination.

Glare.—In the procuring of both artificial and natural illumination, a

harmful degree of glare is to be avoided. Glare may be defined as brightness within the field of view of such intensity as to interfere with vision or to cause discomfort.

Procurement and Maintenance.—

Initial installations of artificial illumination equipment and provisions for daylighting may have been adequate to meet requirements and yet fail under operating conditions due to lack of maintenance service.

Artificial Illumination Maintenance

All electric light fixtures, reflectors, bulbs, etc., should be cleaned or replaced whenever accumulated dust, grime, or other absorbing or opaque agent leads to the loss of more than 10% of the possible light from that source. As a working standard, visible dust or dirt should lead to cleaning. Whenever, for any reason, lighting installations fail to operate, or operate at a loss of more than 10% of the designed intensity, repairs or corrections should be made within 48 hours.

Glare.—Until some satisfactory type of glarimeter is devised one can only say in general that glare is absent when diffuse light is used, so as to avoid specular reflection, and when there are no bright spots of light against dark backgrounds in the field of view. It is in respect

to glare that indirect and semi-indirect lighting systems show their superiority. These systems are less efficient than direct systems, using more power to produce the same illumination on the working plane. They, however, are capable of giving illumination without glare, since all, or nearly all, of the light used is diffusely reflected from the ceiling or walls. By using deep reflectors hiding the filament, direct glare may be eliminated from direct lighting systems.

Even under the best circumstances direct reflectors will always give indirect glare if there are shiny surfaces in the field of view. Indirect systems are, for this reason, better than direct ones for reading and office work, unless mat paper is used or great care is taken to place the light in such a position

that it is not reflected into the eye. Indirect lighting is also better for factories where men are working on shiny metal surfaces, although a high degree of general illumination can sometimes cut down the effect of specular reflection to a considerable extent. Whenever one is anxious to eliminate glare as completely as possible, indirect or semi-indirect systems provide the best means of accomplishing the desired result. Lamps suspended at elevations above eye-level, less than one-quarter their distance from any position at which work is performed, must be shaded in such a manner that the intensity of the brightest square inch of visible light source shall not exceed 75 candlepower. Lamps suspended at greater elevations than 20 feet above the floor are not subject to this requirement.

Natural Illumination Maintenance

Windows, skylights, transoms, etc., where daylight is the source of illumination, should be washed whenever dirt or any other opaque substance excludes more than 10% of the daylight passing through such glass when freshly cleaned.

In those factories wherein window shutters exist, these should be opened and kept open whenever employed persons are engaged in work in the room so shuttered.

Wall cabinets, or piled stock, or any other opaque substances should not be put in front of windows to the lessening of illumination below acceptable work standards.

Ceilings and upper portion of walls should be maintained a light color to increase the effectiveness of the lighting facilities. The lower portion of walls should be somewhat darker in tone to render the lighting restful to the eye.

Direct sunlight should not be cut out by pulling down an opaque shade over the top of the windows, because the top part of the window is particularly needed to give light to the interior of the

room. It is better to employ an opaque shade which should be raised from the bottom of the window. This will reduce the illumination near the window without affecting it over the interior of the room to any great extent.

Windows should extend up as near to the ceiling as practicable. Wire glass should be used and is advocated for practically all factory and mill windows where prisms are not required. Wires of rather open mesh cause so little reduction in light as to warrant no mention of this feature, and wire or ribbed glass gives better diffusion than plain glass.

Where the sky outside the window is obstructed by buildings, prism glass is recommended, if the workroom is deep.

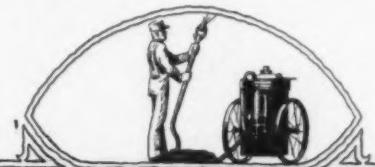
Skylights may sometimes be installed in long, narrow, continuous

strips in a sloping roof. The ribs of the ribbed glass should run parallel to the strips instead of at right angles, as this gives better diffusion of light. Ribbed glass in vertical windows should generally be placed with the ribs horizontal. They thus fulfill roughly the function of prisms.

The Value of Good Illumination

The following advantages of good lighting may be noted:

- (a) Reduction of accidents and injuries.
- (b) Better workmanship and hence less spoiled material.
- (c) Increased production with the same labor cost and factory space.
- (d) Less eyestrain, conservation of eyesight and better health.
- (e) Better working conditions and, by example, better living conditions.
- (f) More contented workmen, longer service and less cost for training employees.
- (g) Better order and greater neatness in the work room.
- (h) Easier and better supervision.





For Instance

We recommend the following brands of Fondant Process Chocolate wherever a high quality dark coating is desired:

- 1—Tehuantepec Vanilla
- 2—Richmond Vanilla
- 3—Bourbon Vanilla
- 4—Brighton

The following **Fondant Process Milk Coatings** are outstanding values:

- 1—Alderney Milk
- 2—Geneva Milk
- 3—Normandy Milk

May we submit suggestions on your chocolate coated lines?

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MANUFACTURED by a Swiss process in which the sugar is slightly modified and the full delicious aroma of the cocoa bean is brought out in one perfect blend of sweetness and fine chocolate flavor.

We can help you build a better line—help you attain that pleasing flavor and texture that leaves a pleasant lingering after-taste so eagerly desired by the buying public.

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25 W. Broadway

Los Angeles

412 W. Sixth St.

The Mysterious Episode of the Factory Bolshevik

(Continued from page 60)

combination of two primary tastes such as salt and sweet is very apt to play pranks on your palate. Such was the case with the vanilla and the peppermint. In the case of the butter cream, however, the addition of salt actually caused a chemical reaction to take place between the oil or butyric acid of the butter and the iron of the ball beater. The result was the fishy taste. In reproducing that condition for you here in the laboratory, instead of using fresh butter as you do in your butter creams and adding salt to it, I merely substituted butter which had already been salted. The iron filings corresponded to the iron of the ball beater."

"Who in the world would have expected that?"

"When vanilla was added to this same salt-fondant, it produced a sickening after-taste. I am not prepared to say just what reactions took place to produce that after-taste, but we do know that it existed. Similarly, the salt-sweet combination destroyed the clean flavor of the peppermint oil, producing a character indescribably weird."

"Can you beat it?"

"And to make matters worse, your own imagination began to play pranks on you, as it tried in vain to connect up the distorted flavors with the usual flavor associations of the pieces in question."

"I did feel sick for a time there—honest."

"I don't doubt it."

"Well, it all seems logical enough now," I admitted. "And I suppose you just took a long guess and decided that the mix-up must have occurred on the elevator."

Sherwood smiled broadly. "Not such a long guess as you think, George. You see, Tony and Angie are engaged. Howard had told me that he sent a bag of salt up to the nut department yesterday, and that he had seen Angie on the elevator when the bag went up. Also—and I tell you you want to keep your eye on Howard—nothing much misses him—that he heard Angie give a little scream the way she always does when Tony squeezes her after the car starts."



Too Late to Classify

Position Wanted—Have you a vacancy for a young man with twelve years' experience and the following qualifications: In brief, my training and experience has been as cost clerk, assistant superintendent, and superintendent; have thorough knowledge of cream, gum, pan, marshmallow and chocolate coated goods and also their most modern methods of manufacture and handling. Can organize factory, handle labor in a highly efficient and economical manner. Address B B 6, care The Manufacturing Confectioner, 30 N. LaSalle St., Chicago.

Superintendent Available

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